TWENTIETH ANNUAL REPORT

OF THE

Sanitary Commissioner for the Government of Bombay,

1883,

WITH

APPENDICES.

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ANNUAL SANITARY REPORT FOR 1883.

SECTION I.

INTRODUCTORY.

Remarks on the healthiness of the year.

The year 1883, as will be shown more fully in the following section, was an unhealthy one. There was not only a widespread epidemic of cholera, but small-pox prevailed to a large extent over a great portion of the Presidency, whilst fevers also were in excess of the mean.

2. Fears were at one season of the year entertained that the locusts would cause a scarcity, if not famine, over extensive areas of the Deccan and the Konkan, but the energetic measures taken in the affected districts by order of Government for their destruction were in a great degree successful, whilst the strong easterly breeze that set in at the termination of the rains blew them in great numbers out to sea where they perished.

Rain-fall.

3. Unusually heavy rain accompanied the setting in of the south-west monsoon in June, whilst the easterly rains in September and October were more abundant and prolonged than usual, so that with the exception of the Collectorates of Kaládgi, Kaira, Ahmedabad and Sind, the rain-fall in each of the remaining districts of the Presidency was above the annual mean. The following statement shows the monthly fall of rain in each district of the Presidency during the year as compared with 1882 and the average monthly rain-fall during the 8 years ending 1882 :—

Districts.		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total
		In. Cts.	In. Cts.	In. Cts.	In. Cts.	In. Cts.	In. Cts.	In. Cts.	In. Cts.	In. Cts.	In. Cts.	In. Cts.	In. Cts.	In. Cts.
Khándesh	Average of 8 years.	0 10	0 10	0 04	0 20	0 32	5 21	7 00	6 71	4 70	1 49	0 12	0 16	26 64
	1882	..	..	..	0 01	0 13	10 99	9 43	0 06	3 67	0 10	0 27	..	23 70
	1883	0 09	..	..	..	0 08	19 20	13 80	8 00	0 37	0 98	..	..	42 89
Násik	Average of 8 years.	0 06	0 10	0 06	0 07	1 03	8 74	13 84	8 03	3 96	1 05	0 15	0 22	42 61
	1882	..	..	..	0 12	0 49	15 64	15 01	5 87	18 65	0 26	0 27	0 03	56 99
	1883	0 44	..	..	..	0 83	9 23	15 98	9 45	12 45	0 25	0 21	..	57 59
Ahmednagar	Average of 8 years.	..	0 03	0 11	0 15	0 79	4 20	3 43	3 65	3 01	1 20	0 57	0 15	21 09
	1882	..	..	0 02	0 23	0 46	7 46	7 85	2 69	10 44	0 24	0 79	0 12	29 54
	1883	..	..	..	..	0 99	8 58	7 87	7 76	9 56	0 90	0 42	..	36 10
Poona	Average of 8 years.	..	0 04	0 19	0 24	1 02	7 85	13 26	7 84	6 52	2 03	0 61	0 15	39 30
	1882	..	..	0 07	0 25	0 69	12 87	17 05	2 65	7 58	1 00	1 79	0 18	43 93
	1883	..	..	0 01	0 07	1 68	10 51	13 50	6 46	11 12	7 50	0 49	..	51 09
Sholápur	Average of 8 years.	0 01	0 03	0 24	0 26	0 96	4 06	3 21	4 84	8 87	3 23	1 15	0 25	26 17
	1882	0 09	..	0 19	0 04	0 56	9 05	7 26	4 69	13 96	0 96	2 18	0 02	39 25
	1883	0 03	..	0 04	0 04	0 39	9 21	1 25	3 75	7 81	4 29	1 09	..	22 19
Sátára	Average of 8 years.	..	0 04	0 18	0 51	1 18	10 17	10 51	11 59	8 02	2 39	0 91	0 06	56 41
	1882	0 05	..	0 52	0 17	1 89	21 60	22 32	5 70	8 35	0 98	1 66	0 19	72 97
	1883	0 20	..	..	0 87	0 83	12 69	18 14	7 53	10 19	6 38	1 35	..	57 68
Belgaum	Average of 8 years.	0 06	0 01	0 47	1 05	1 06	7 15	8 52	5 67	4 35	5 11	1 77	0 13	36 31
	1882	0 49	..	1 11	0 44	1 19	12 46	10 02	5 20	7 43	2 23	5 68	0 06	45 78
	1883	..	..	0 08	1 44	1 17	8 56	12 96	6 13	5 65	6 24	1 19	..	43 26
Dhárwár	Average of 8 years.	0 09	0 04	0 36	1 15	2 71	4 05	4 61	3 86	3 93	3 61	1 30	0 23	26 54
	1882	0 02	..	..	0 58	4 03	6 67	11 06	5 44	4 70	2 24	1 77	0 02	36 04
	1883	..	..	0 43	5 49	1 91	3 74	5 23	4 55	2 16	6 65	0 85	0 16	27 67
Kaládgi	Average of 8 years.	0 10	0 09	0 32	0 61	1 25	3 54	3 06	4 39	3 05	4 21	1 68	0 25	25 79
	1882	0 78	..	0 06	0 06	2 00	5 95	6 65	0 91	7 44	2 15	3 83	0 10	29 11
	1883	..	..	0 25	1 23	0 49	4 60	5 06	6 66	1 74	4 69	1 26	..	24 28

Districts.		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
		In. Cts.	In. Cts.	In. Cts.	In. Cts.	In. Cts.	In. Cts.	In. Cts.	In. Cts.	In. Cts.	In. Cts.	In. Cts.	In. Cts.	In. Cts.
Kánara ..	Average of 8 years.	0 08	..	0 01	0 06	3 24	23 77	31 67	20 59	10 02	5 24	1 76	0 13	97 31
	1862	0 05	..	0 06	4 52	22 59	39 67	12 17	9 76	5 47	0 41	0 01	104 13
	1863	..	..	0 13	1 41	2 98	33 18	43 63	15 06	15 64	9 77	2 93	124 33
Satára(giri ..	Average of 8 years.	0 01	0 01	0 03	0 03	1 39	21 61	25 44	25 31	16 34	4 27	0 77	0 07	115 26
	1862	0 00	..	0 01	0 02	0 71	11 11	42 98	19 43	22 07	3 47	0 99	0 08	102 74
	1863	0 24	..	..	..	0 66	39 05	51 19	19 89	17 27	9 06	0 38	..	138 70
Kolába ..	Average of 8 years.	..	0 07	..	..	0 05	26 49	34 14	25 94	10 69	3 01	0 39	0 02	106 31
	1862	..	..	..	0 01	0 46	46 29	39 28	9 18	17 54	2 16	0 23	..	109 39
	1863	0 24	..	..	0 12	0 60	39 36	46 08	13 01	28 79	11 80	0 43	..	140 23
Bombay City	Average of 8 years.	0 01	0 03	0 01	..	0 55	72 79	78 48	13 57	13 46	2 34	0 16	..	77 11
	1862	..	0 01	0 01	0 03	..	30 37	39 26	3 47	10 08	0 65	0 01	..	74 07
	1863	0 12	..	..	..	0 47	19 26	37 44	13 51	13 30	10 03	0 58	..	94 38
Thána ..	Average of 8 years.	..	0 13	0 05	0 01	0 53	71 58	39 06	22 65	16 30	2 05	0 17	..	152 74
	1862	..	..	..	0 01	0 01	34 25	44 08	9 75	16 24	0 88	0 54	..	106 21
	1863	0 49	..	..	..	0 69	37 77	48 42	16 64	24 34	9 08	..	..	137 13
Surat ..	Average of 8 years.	..	0 33	..	..	0 11	11 98	20 32	11 30	10 07	1 68	0 03	0 03	55 33
	1862	..	..	..	..	..	15 61	28 12	3 10	15 35	..	0 03	..	60 23
	1863	0 62	..	..	..	0 30	30 91	23 66	6 40	15 69	4 45	..	..	72 03
Broach ..	Average of 8 years.	0 04	0 10	..	0 01	0 07	5 81	16 08	7 93	8 69	1 18	0 03	0 01	40 26
	1862	..	..	..	..	..	5 00	19 48	2 13	8 16	..	0 06	..	34 74
	1863	0 73	..	..	..	0 42	6 35	19 67	3 52	10 50	2 26	..	..	43 54
Kaira ..	Average of 8 years.	..	0 25	..	0 01	0 43	2 43	10 48	7 80	7 48	0 60	..	0 13	30 75
	1862	..	0 12	..	..	..	0 18	24 37	4 93	4 01	..	..	..	33 60
	1863	0 78	..	..	..	0 79	5 79	16 01	1 67	7 82	0 71	..	..	33 35
Panch Mahals.	Average of 8 years.	..	0 39	0 01	0 01	0 35	4 47	15 94	9 35	9 92	0 79	0 02	0 13	41 48
	1862	..	..	..	..	..	10 88	20 79	4 59	11 66	0 94	0 07	..	48 93
	1863	0 65	..	..	..	1 79	4 67	24 45	3 48	10 84	0 91	..	..	46 79
Ahmedabad.	Average of 8 years.	..	0 15	0 01	0 03	0 26	3 29	12 35	7 32	4 93	1 06	..	0 09	31 04
	1862	..	0 02	..	0 01	..	5 58	18 57	3 88	2 80	..	..	..	31 31
	1863	0 26	..	..	..	1 26	2 99	12 23	1 64	5 41	0 82	..	..	24 21
Kaira ..	Average of 8 years.	0 15	0 25	0 12	0 03	0 05	0 50	3 48	2 09	1 22	0 07	0 18	0 03	9 24
	1862	0 18	..	..	0 02	0 07	..	7 79	2 05	..	..	..	0 01	10 01
	1863	0 21	..	0 15	..	..	0 78	4 86	0 61	0 73	..	..	..	6 74
Hyderabad ..	Average of 8 years.	0 04	0 08	0 10	0 37	0 04	0 13	3 55	1 99	0 67	0 61	0 07	0 02	7 27
	1862	0 18	..	..	0 01	0 04	..	7 00	2 11	..	..	..	..	10 34
	1863	0 25	..	0 08	..	0 05	0 09	2 65	0 10	0 81	0 01	..	..	3 84
Thar and Parkar.	Average of 8 years.	0 02	0 12	0 05	0 27	0 10	0 13	4 61	3 09	1 34	0 33	..	0 04	11 47
	1862	0 14	..	..	..	..	1 95	8 88	3 87	0 17	..	..	..	14 49
	1863	0 23	..	..	..	0 74	4 05	0 10	2 29	0 03	..	..	..	8 14
Shikárpur ..	Average of 8 years.	0 14	0 22	0 14	0 25	0 04	0 03	1 23	1 73	0 18	..	0 19	0 05	4 17
	1862	0 11	0 01	..	..	0 01	..	3 66	1 28	0 01	..	..	..	5 07
	1863	0 15	..	0 02	..	0 30	0 04	2 55	..	0 03	..	..	..	3 09
Upper Sind Frontier.	Average of 8 years.	0 24	0 19	0 11	0 15	0 02	0 05	1 08	1 64	0 39	0 02	0 17	0 06	3 75
	1862	0 10	..	..	..	..	..	2 47	1 41	..	..	..	..	3 98
	1863	0 23	..	0 06	0 11	0 17	..	2 33	..	0 01	..	..	..	2 91

4. I have also thought it would be useful to compile a statement showing the prices of the staple grains in each of the districts of the Presidency from the statements published in the *Bombay* and *Sind Government Gazettes*. Food has been cheap and plentiful throughout the year in all the districts of the Presidency.

Prices of staple grains.

Statement showing the Prices of Food in the Districts of the Bombay Presidency during 1883.

District.	Staple Grains.	Retail quantities per Rupee by Seer of 10 Tolas.																																	
		12th January.		21st January.		14th February.		28th February.		14th March.		21st March.		11th April.		26th April.		13th May.		21st May.		13th June.		26th June.		12th July.		25th July.		14th August.		21st August.		11th September.		26th September.		14th October.		29th October.		15th November.		29th November.		10th December.		31st December.	
		S.	ch.	S.	ch.	S.	ch.	S.	ch.	S.	ch.	S.	ch.	S.	ch.	S.	ch.	S.	ch.	S.	ch.	S.	ch.	S.	ch.	S.	ch.	S.	ch.	S.	ch.	S.	ch.	S.	ch.	S.	ch.	S.	ch.	S.	ch.	S.	ch.	S.	ch.	S.	ch.
Khándesh	Wheat	15	8	15	8	15	8	14	14	15	12	15	12	16	0	14	14	15	4	15	11	14	0	14	0	14	0	14	0	14	0	14	0	14	14	15	12	15	12	16	10	16	10	18	0	19	4
	Rice, common	14	0	14	0	14	4	12	10	12	10	12	10	10	0	10	12	10	12	10	12	10	10	9	15	9	15	10	13	10	13	10	13	10	13	12	10	12	10	12	10	12	10	12	10	12	10	12	10	12	10
	Bájri	16	3	16	3	16	0	16	0	16	0	16	0	16	0	16	0	14	11	16	0	11	4	14	4	14	4	14	4	14	4	14	4	15	2	15	2	16	0	16	0	16	1	16	1	16	1	16	1	16	1
	Jowári	20	0	20	0	20	4	19	4	18	9	18	9	20	0	17	10	16	7	18	9	16	0	16	0	16	0	16	0	16	0	16	0	16	14	17	11	17	11	18	9	18	9	19	4	20	4	20	4	20	4
Násik	Wheat	11	6	11	6	11	6	11	6	11	6	12	13	12	13	12	13	14	4	14	4	14	4	14	4	14	4	14	4	14	4	14	4	14	4	14	4	14	4	14	4	14	4	17	0	17	0	17	0	17	0
	Rice, common	12	0	12	0	12	0	12	0	12	0	13	6	13	6	13	6	13	6	13	6	13	6	13	6	13	6	13	6	13	6	13	6	13	6	13	6	13	6	13	6	13	6	13	6	13	6	13	6	13	6
	Bájri	16	6	16	6	16	6	16	6	16	6	16	6	16	6	16	6	16	6	16	6	16	6	16	6	16	6	16	6	16	6	16	6	16	6	16	6	16	6	16	6	16	6	16	6	16	6	16	6	16	6
	Jowári	22	6	22	6	22	6	22	6	22	6	22	6	22	0	22	0	22	0	22	0	22	0	22	0	22	0	22	6	22	6	22	6	22	6	22	6	22	6	22	6	22	6	22	6	22	6	22	6	22	6
Ahmednagar	Wheat	13	8	13	8	14	4	13	8	14	4	14	4	14	4	13	7	13	2	13	2	13	8	14	1	13	14	14	6	13	4	12	4	14	5	15	11	14	6	14	5	14	12	15	0	15	0	15	0	15	0
	Rice, common	10	0	11	14	11	14	12	4	12	11	12	11	15	11	15	4	13	6	12	9	12	9	13	12	13	12	11	11	11	4	10	9	9	15	13	2	10	8	10	13	10	13	11	9	11	8	11	8	11	8
	Bájri	21	11	21	11	21	11	20	6	21	0	21	0	20	6	19	12	17	6	17	6	17	6	17	6	17	6	17	6	17	6	17	6	17	12	17	12	17	6	17	6	17	10	17	10	17	10	17	10	17	10
	Jowári	27	4	27	4	27	4	27	4	27	4	27	4	27	4	20	4	20	4	20	4	20	4	20	4	20	4	20	4	20	4	20	4	20	4	20	4	20	4	20	4	20	4	20	4	20	4	20	4	20	4
Poona	Wheat	12	10	12	10	12	10	12	10	14	15	14	6	14	15	14	15	14	15	15	15	15	15	12	10	12	10	12	10	12	8	12	10	12	10	11	8	12	10	12	10	12	10	12	10	12	10	12	10	12	10
	Rice, common	11	0	11	0	11	0	11	0	11	8	11	8	12	4	12	4	11	10	11	10	11	10	11	0	11	0	11	0	11	0	11	0	11	0	11	0	11	0	11	0	11	0	11	0	11	0	11	0	11	0
	Bájri	16	0	16	0	16	0	16	0	16	0	16	0	16	0	16	0	17	0	15	12	17	4	16	0	16	0	16	0	16	0	16	0	17	2	17	2	17	4	17	4	17	4	17	4	17	4	17	4	17	4
	Jowári	22	12	23	15	23	15	22	13	23	15	23	2	23	15	21	15	21	12	19	7	19	9	19	9	19	9	19	9	20	11	20	11	20	11	21	12	21	12	21	12	21	15	23	15	23	15	23	15	23	15
Shólápur	Wheat	14	8	14	2	14	8	14	8	14	8	14	8	14	8	14	8	14	8	14	8	14	8	14	8	14	8	14	8	14	8	14	8	14	8	14	8	14	8	14	8	14	8	13	9	14	8	14	8	14	8
	Rice, common	12	4	12	4	12	4	11	9	11	5	11	5	11	5	11	5	11	5	11	5	11	5	11	5	11	5	11	5	11	5	11	5	11	5	11	5	11	5	11	5	11	5	11	5	11	5	11	5	11	5
	Bájri	20	5	23	10	23	10	20	12	20	6	20	6	20	6	20	6	20	6	20	6	20	6	20	6	20	6	20	6	20	6	20	6	20	6	20	6	20	6	20	6	20	6	20	6	20	6	20	6	20	6
	Jowári	24	8	24	10	26	12	25	0	21	15	24	8	21	8	27	10	26	12	25	14	26	12	28	7	29	2	28	14	27	10	27	0	27	10	24	15	24	15	25	1	25	1	25	1	25	1	25	1	25	4
Sátára	Wheat	10	11	11	6	12	1	13	6	13	6	13	6	13	6	13	6	16	6	10	6	12	1	12	1	11	0	12	1	12	6	13	6	13	6	13	6	13	6	13	6	13	6	14	12	14	12	14	12	14	12
	Rice, common	10	0	10	12	11	7	11	7	11	7	11	7	11	7	11	7	11	7	11	7	10	8	11	7	11	7	11	7	11	7	11	7	11	7	11	7	11	7	11	7	11	7	11	7	11	7	11	7	11	7
	Bájri	20	1	19	6	19	6	19	6	19	12	19	6	19	6	19	6	19	6	19	6	19	6	19	6	19	6	19	6	19	6	19	6	19	6	19	6	19	6	19	6	19	6	19	6	19	6	19	6	19	6
	Jowári	20	10	20	13	21	3	21	5	22	10	21	5	20	0	20	0	20	0	18	10	16	5	16	8	17	0	18	10	18	10	18	10	19	5	20	0	20	0	20	0	20	0	19	0	18	15	19	13	18	0
Belgaum	Wheat	19	0	19	0	19	0	19	0	19	0	19	0	19	0	19	0	19	8	19	5	18	13	18	8	18	8	16	8	16	8	16	8	16	8	16	8	16	0	16	0	16	1	17	6	18	9	19	6	19	6
	Rice, common	14	6	14	6	13	8	13	8	13	8	13	8	13	8	13	8	13	8	13	8	13	8	13	8	13	8	13	8	13	8	13	8	13	8	13	8	13	8	13	8	13	8	13	8	13	8	14	0	14	0
	Jowári	27	5	28	0	28	0	28	0	28	0	28	0	28	0	28	0	28	0	28	0	28	0	28	0	28	0	28	0	28	0	28	0	28	0	28	0	28	0	28	0	28	0	28	0	28	0	28	0	28	0
Dhárwár	Wheat	23	0	23	0	23	0	23	0	23	0	23	0	23	0	23	0	23	0	23	0	24	0	24	0	25	0	25	0	25	0	25	0	25	0	25	0	25	0	25	0	25	0	25	0	25	0	25	0	25	0
	Rice, common	17	0	17	0	17	0	17	0	17	0	17	0	17	0	17	0	16	0	16	0	16	0	16	0	16	0	16	0	16	0	16	0	16	0	16	0	16	0	16	0	16	0	16	0	16	0	16	0	16	0
	Jowári	27	0	26	0	27	0	27	0	27	0	27	0	26	0	26	0	27	0	26	0	26	0	26	0	26	0	26	0	26	0	26	0	26	0	26	0	26	0	26	0	26	0	26	0	26	0	26	0	26	0
	Bájri	26	0	26	0	26	0	26	0	26	0	26	0	26	0	26	0	27	0	26	0	24	0	26	0	26	0	25	0	24	0	24	0	24	0	24	0	24	0	24	0	24	0	24	0	24	0	24	0	24	0
Kolábá	Wheat	21	10½	22	8½	22	8½	23	8½	23	8½	23	8½	23	8½	23	8½	25	7	23	8½	23	8½	23	8½	23	8½	23	8½	23	8½	23	8½	23	8½	23	8½	23	8½	23	8½	23	8½	23	8½	23	8½	23	8½
	Rice, common	9	6½	10	5	10	5	10	5	10	5	10	5	10	5	10	5	10	5	10	5	10	5	10	5	10	5	10	5	10	5	10	5	10	5	10	5	10	5	10	5	10	5	10	5	10	5	10	5	10	5
	Jowári	40	0	42	8	42	8	42	8	39	7	35	0	39	13	31	10	31	10	31	10	31	10	31	10	31	10	31	10	31	10	31	10	31	10	31	10	31	10	31	10	31	10	31	10	31	10	31	10	31	10
	Bájri	35	12	35	12	35	12	35	12	37	1	37	1	35	04	39	1	36	1	32	1	32	1	32	1	32	1	32	1	32	1	32	1	32	1	32	1	32	1	32	1	32	1	32	1	32	1	32	1	32	1

Statement showing the prices of Food in the Districts of the Bombay Presidency during 1883—continued.

Districts.	Staple Grains.	Retail quantities per Rupee by Beam of 80 Tolas.																													
		15th January.	31st January.	14th February.	28th February.	15th March.	31st March.	15th April.	30th April.	15th May.	31st May.	15th June.	30th June.	15th July.	31st July.	15th August.	31st August.	15th September.	30th September.	15th October.	31st October.	15th November.	30th November.	15th December.	31st December.
		S. ch.	S. ch.	S. ch.	S. ch.	S. ch.	S. ch.	S. ch.	S. ch.	S. ch.	S. ch.	S. ch.	S. ch.	S. ch.	S. ch.	S. ch.	S. ch.	S. ch.	S. ch.	S. ch.	S. ch.	S. ch.	S. ch.	S. ch.	S. ch.
Kanara	Rice, common	12 8	12 8	13 0	13 0	13 0	12 12	12 4	12 0	12 0	12 0	12 0	12 4	11 10	12 0	12 4	12 0	12 0	12 0	12 8	12 8	11 12	11 0	12 0	12 0
	Nachni	22 0	22 0	22 0	23 0	22 8	22 0	21 0	19 4	18 0	18 0	16 0	16 0	16 8	18 8	18 0	18 0	18 0	18 0	18 0	18 0	16 0	16 0	16 14	18 0
	Wartí	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Ratnágiri	Rice, common	15 9	16 4	16 4	16 4	16 4	16 4	16 4	16 4	15 9	14 2	14 2	14 2	13 7	13 7	13 7	13 7	13 7	14 2	14 2	14 2	14 2	14 2	14 13	14 2
	Nachni	23 7	23 7	21 2	21 2	21 2	21 2	21 2	21 2	21 2	21 2	18 13	18 13	18 13	18 13	18 13	18 13	18 13	18 13	18 13	21 2	21 2	21 2	21 2	21 2
	Wartí	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Kolába	Rice, common	14 8	15 0	15 0	14 8	14 8	14 8	14 8	14 8	14 8	14 8	14 0	12 8	12 8	12 8	12 8	12 8	13 0	12 8	12 8	12 8	12 8	12 8	11 8	11 8
	Nachni	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Wartí	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Bombay City	Rice, common	11 8	11 6	13 2	13 12	13 0	13 6	13 1	13 5	13 2	13 1	12 6	11 4	12 13	13 1	12 1	12 6	13 10	13 4	13 7	12 1	11 11	11 7	11 4
	Wheat	10 8	10 2	10 0	10 2	10 6	10 9	10 9	10 4	10 5	10 5	10 0	10 11	10 7	10 0	10 0	10 0	10 0	10 2	10 2	10 4	10 6	10 2	10 4	10 4
Thána	Rice, common	10 0	10 6	10 0	10 0	10 0	10 0	10 0	10 10	10 0	10 0	10 0	10 0	10 0	10 0	8 2	8 2	10 0	10 0	10 0	10 0	10 0	8 0	0 0	0 0
	Nachni	25 11	25 11	25 11	25 11	25 11	25 11	25 11	25 11	25 11	25 11	25 11	25 11	25 11	25 11	25 11	25 11	25 11	25 11	25 11	25 11	25 11	25 11	25 11	25 11
	Wartí	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Surat	Wheat	13 1	13 1	13 1	13 1	13 1	13 1	11 12	11 10	11 6	11 6	11 6	11 1	11 8	11 6	11 4	11 4	11 4	11 4	11 2	11 2	11 2	11 2	11 2	11 2
	Rice, common	8 7	8 7	8 7	8 7	8 7	8 7	8 7	8 7	8 7	8 7	8 7	8 7	8 7	8 7	8 5	8 5	8 5	8 5	8 4	8 4	8 4	8 4	8 4	8 4
	Bájrí	14 2	14 2	14 2	14 2	14 2	14 2	14 2	14 2	14 2	14 2	14 2	14 1	14 1	14 1	14 0	14 0	14 0	14 1	14 1	14 1	14 2	14 2	14 2	14 2
Broach	Wheat	12 5	12 3	11 12	11 12	11 12	12 10	12 10	12 10	12 10	12 10	12 10	12 4	12 4	12 4	12 4	12 4	12 4	12 4	12 2	12 2	12 2	12 2	12 2	12 0
	Rice, common	13 0	13 1	14 8	14 8	14 8	13 7	13 7	13 7	13 7	13 7	13 7	13 7	13 7	13 7	13 7	13 12	13 12	13 12	13 12	13 12	13 10	13 10	13 10	12 10
	Bájrí	14 5	14 5	14 8	14 8	14 8	14 1	14 1	14 1	14 1	14 1	13 14	13 14	13 14	13 14	13 14	13 14	13 14	13 14	13 14	13 14	13 10	13 10	13 14	13 14
Kaira	Wheat	12 5	12 5	14 11	14 11	11 7	11 7	11 14	11 7	11 7	11 7	11 7	11 7	11 7	11 7	11 6	10 10	10 10	10 10	11 7	11 7	11 7	11 7	11 7	11 1
	Rice, common	15 4	15 4	15 4	16 0	15 4	15 4	15 4	14 9	14 9	14 9	14 9	14 9	15 0	15 0	13 0	15 0	15 0	15 0	15 0	15 0	15 0	15 0	16 0	16 0
	Bájrí	15 4	15 4	15 4	15 4	15 4	14 9	14 14	14 9	14 9	14 14	14 14	14 14	15 15	15 15	13 0	13 12	13 12	13 8	13 12	13 12	13 12	13 12	15 4	16 0
Panch Mahals	Wheat	10 0	10 0	10 11	10 0	10 0	10 0	11 6	11 6	11 6	11 6	11 6	11 6	11 6	11 6	11 6	10 8	10 8	10 8	10 8	10 8	10 8	10 8	11 6	11 6
	Rice, common	15 0	15 0	15 0	15 0	15 0	15 0	15 0	15 0	15 0	15 0	15 0	15 0	15 0	15 0	15 0	15 5	15 5	15 5	15 5	15 5	15 5	15 5	15 5	15 0
	Bájrí	17 12	17 12	17 12	17 12	17 12	17 12	16 0	16 0	16 0	16 0	16 0	16 0	16 0	16 0	16 0	13 12	13 12	13 12	13 12	14 8	14 8	14 8	16 8	16 0
Ahmedabad	Wheat	13 0	13 0	13 8	13 8	13 8	13 0	13 0	13 0	13 0	12 0	12 0	12 0	12 0	12 0	11 0	12 0	12 0	12 0	12 0	11 8	12 0	12 8	12 0	12 0
	Rice, common	14 0	14 0	14 8	15 0	15 0	15 8	15 0	15 0	14 8	13 0	12 0	12 0	13 8	12 0	12 0	12 0	12 0	12 8	12 0	12 0	12 0	12 0	12 0	12 0
	Bájrí	16 0	16 0	16 0	16 0	16 0	16 0	16 0	16 0	15 8	15 0	15 0	15 0	15 8	14 0	14 0	14 0	14 0	14 8	15 0	14 8	15 0	16 8	15 0	15 0

Statement showing the Prices of Food sold in the Public Markets in the Province of Sind during the year 1883.

Stations.	Staple Grains.	Retail Sale: Quantity per Rupee.																																					
		Week ending 6th January 1883.		Week ending 13th January 1883.		Week ending 20th January 1883.		Week ending 27th January 1883.		Week ending 3rd February 1883.		Week ending 10th February 1883.		Week ending 17th February 1883.		Week ending 24th February 1883.		Week ending 3rd March 1883.		Week ending 10th March 1883.		Week ending 17th March 1883.		Week ending 24th March 1883.		Week ending 31st March 1883.		Week ending 7th April 1883.		Week ending 14th April 1883.		Week ending 21st April 1883.		Week ending 28th April 1883.		Week ending 5th May 1883.		Week ending 12th May 1883.		Week ending 19th May 1883.		Week ending 26th May 1883.		Week ending 2nd June 1883.		Week ending 9th June 1883.		Week ending 16th June 1883.		Week ending 23rd June 1883.		Week ending 30th June 1883.		Week ending 7th July 1883.	
		S.	Ch.	S.	Ch.	S.	Ch.	S.	Ch.	S.	Ch.	S.	Ch.	S.	Ch.	S.	Ch.	S.	Ch.	S.	Ch.	S.	Ch.	S.	Ch.	S.	Ch.	S.	Ch.	S.	Ch.	S.	Ch.	S.	Ch.	S.	Ch.	S.	Ch.	S.	Ch.
Karachi	Wheat, 2nd Sort	14	0	14	0	14	0	13	0	11	0	12	10½	13	0	12	0	13	0	13	5	14	0	14	0	14	0	13	5½	13	5½	14	0	13	5½	14	0	14	0	14	0	14	0	15	0	14	0	14	0	14	0	14	0
	Rice do.	12	0	11	0	11	0	12	0	13	0	10	0	12	0	12	0	12	0	11	11	17	10½	12	0	12	0	12	0	12	0	13	0	16	0	12	0	12	0	16	0	16	0	16	0	12	0	12	0	16	0	16	0
	Bájri do.	20	0	20	0	17	5½	18	0	20	0	20	0	20	0	20	0	20	0	20	0	19	0	19	0	19	0	19	5½	18	10½	19	2½	20	0	20	0	20	0	20	0	20	0	20	0	20	0	21	0	21	0
	Juwári do.	23	0	24	5½	23	5½	24	0	23	0	23	0	24	5½	23	14	22	0	22	0	23	10½	22	10½	22	0	24	0	22	0	24	0	24	0	23	0	23	0	24	0	24	0	23	0	23	0	23	0	23	0	23	0
Hyderabad	Wheat, 2nd Sort	14	0	14	0	14	0	14	0	14	0	14	0	14	0	13	0	13	0	13	0	13	0	13	0	13	0	13	0	12	8	13	8	13	0	13	0	13	8	13	8	13	8	13	8	13	8	14	0	13	8
	Rice do.	16	0	13	0	13	0	13	0	13	0	13	0	13	0	13	0	13	0	13	0	13	0	13	0	13	0	13	0	13	0	13	0	13	0	13	0	13	0	13	0	13	0	13	0	13	0	13	0	13	0
	Bájri do.	24	0	24	0	24	0	24	0	26	0	26	0	26	0	26	0	26	0	26	0	26	0	26	0	26	0	26	0	26	0	24	0	23	0	26	0	26	0	26	0	26	0	26	0	26	0	26	0	21	0
	Juwári do.	29	0	29	0	29	0	29	0	29	0	28	0	28	0	26	0	28	0	28	0	28	0	28	0	28	0	28	0	28	0	28	0	28	0	28	0	28	0	28	0	28	0	28	0	28	0	28	0	26	0
Thar and Párkar	Wheat, 2nd Sort	14	8	14	8	14	8	14	8	14	8	14	8	14	8	14	8	14	8	14	8	14	8	14	8	14	8	14	8	14	8	14	8	14	8	14	8	14	8	14	8	14	8	14	8	14	8	14	8	14	0
	Rice do.	15	0	14	11½	14	0	14	8	14	0	14	0	14	0	14	0	14	0	14	0	14	0	14	0	14	0	14	0	14	0	14	0	14	0	14	0	14	0	14	8	14	8	14	0	14	0	14	0	13	4½
	Bájri do.	22	0	20	14	19	7	18	12½	18	8	18	8	18	8	18	8	18	8	18	8	19	0	19	12½	19	0	19	12	19	12	18	14	19	10½	18	12	17	14½	16	8½	16	7	16	12½	16	12½	16	8	16	8	16	0
	Juwári do.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Shikárpur	Wheat, 2nd Sort	14	8	14	0	15	0	15	0	15	9	15	0	14	4	14	8	15	0	15	0	15	8	14	0	13	0	14	8	16	0	13	12	16	0	15	0	13	0	16	0	15	0	15	8	16	0	16	0	16	0	15	0
	Rice do.	19	12	19	0	20	0	20	0	19	4	20	0	20	0	18	0	16	0	16	0	15	0	18	0	17	0	18	0	20	0	18	0	20	0	20	0	20	0	18	0	20	0	18	0	20	0	18	0	17	8
	Bájri do.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Juwári do.	32	0	32	0	32	0	32	0	32	0	32	0	33	0	30	0	32	0	32	0	32	0	32	0	31	0	30	0	30	0	31	0	30	0	32	0	34	8	36	0	32	0	32	0	32	0	32	0	32	0	32	0
Upper Sind Frontier	Wheat, 2nd Sort	15	0	15	0	15	0	15	9	15	0	16	0	15	0	15	0	15	0	15	6	16	0	16	0	16	0	14	8	14	0	14	0	14	8	14	8	14	8	14	8	14	8	16	0	16	0	15	0	15	0
	Rice do.	16	0	16	0	16	0	16	0	16	0	16	0	16	0	16	0	14	8	14	8	16	0	16	0	16	0	15	0	16	0	16	0	15	0	15	0	15	0	15	0	16	0	16	0	16	0	15	0	13	8	13	8
	Bájri do.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Juwári do.	40	0	40	0	40	0	40	0	40	0	..	..	..	..	..	..	..	..	36	0	36	0	..	..	..	..	..	..	..	..	..	..	..	..	..	..	40	0	..	..	..	..	..	..	36	0	..	..				

Statement showing the Prices of Food sold in the Public Markets in the Province of Sind during the year 1883—continued.

Stations.	Staple Grains.	Retail Sale: Quantity per Rupee.																																			
		Week ending 6th July 1883.		Week ending 13th July 1883.		Week ending 22nd July 1883.		Week ending 31st July 1883.		Week ending 7th August 1883.		Week ending 13th August 1883.		Week ending 20th August 1883.		Week ending 27th August 1883.		Week ending 3rd September 1883.		Week ending 10th September 1883.		Week ending 17th September 1883.		Week ending 24th September 1883.		Week ending 1st October 1883.		Week ending 8th October 1883.		Week ending 15th October 1883.		Week ending 22nd October 1883.		Week ending 29th October 1883.		Week ending 5th November 1883.		Week ending 12th November 1883.		Week ending 19th November 1883.		Week ending 26th November 1883.		Week ending 3rd December 1883.		Week ending 10th December 1883.		Week ending 17th December 1883.		Week ending 24th December 1883.		Week ending 31st December 1883.	
		S.	Ch.	S.	Ch.	S.	Ch.	S.	Ch.	S.	Ch.	S.	Ch.	S.	Ch.	S.	Ch.	S.	Ch.	S.	Ch.	S.	Ch.	S.	Ch.	S.	Ch.	S.	Ch.	S.	Ch.	S.	Ch.	S.	Ch.	S.	Ch.	S.	Ch.
Kashi ..	Wheat, 2nd Sort	14	0			13	0	14	0	14	0	13	0	12	0	13	0	13	0	13	0	13	0	13	0	14	0	14	0	14	0	14	0	14	0	14	0	14	0
	Rice do. ..	12	0	Not given.		16	0	16	0	13	0	12	0	12	0	13	0	13	0	13	0	13	0	13	0	12	0	14	0	14	0	14	0	14	0	14	0	14	0
	Bajri do.	22	0			20	0	20	0	20	0	20	0	20	0	20	0	18	0	18	0	20	0	20	0	19	0	20	0	20	0	20	0	20	0	18	0	18	0
	Jowari do. ..	22	0			23	0	26	0	24	0	25	0	21	0	22	0	23	0	24	0	21	0	24	0	24	0	24	0	22	0	22	0	24	0	24	0	24	0
Hyderabad	Wheat, 2nd Sort	13	8	13	8	13	8	13	8	13	0	13	0	13	8			13	8	13	0	13	0	12	8	13	8	13	8	13	6	13	8	13	6	13	8	14	0	14	0
	Rice do. ..	12	0	13	0	13	0	13	0	13	0	13	0	13	0	Not given.		13	0	13	0	13	0	13	0	13	0	13	0	13	0	13	0	13	0	13	0	14	0	14	0
	Bajri do.	21	0	21	0	21	0	21	0	21	0	22	0			20	0	20	0	20	0	20	0	21	0	21	0	20	0	20	0	20	12	20	12	21	0	20	4	20	0	20	0	20	0	20	0
	Jowari do. ..	26	0	27	0	27	0	27	0	27	0	26	0	25	0			25	0	24	0	25	0	26	0	26	0	26	0	26	0	26	0	24	0	24	0	22	0	24	0	24	0	24	0	24	0	24	0
Thar and Parkar.	Wheat, 2nd Sort	14	0	14	0	13	14	13	0			15	0			13	0	13	2	13	8	13	8	13	4	13	8	13	8	13	8	13	8	13	12½	13	0	13	0	13	0	13	0	13	0	13	0	13	0
	Rice do. ..	13	4½	13	0	13	0	13	0			13	0			13	0	13	2	13	4	13	4	13	6	13	8	13	6	13	6	13	8	13	7½	13	8	13	8	13	8	13	8	13	8	13	8	13	8	12	
	Bajri do.	16	5	16	4	16	4	16	4			19	0			15	0	15	4½	17	7	18	0	18	10	18	0	18	0	12	12	17	4	16	15	17	0	17	4½	17	4½	17	8	17	8			16	8	16	8	16	8
	Jowari do. ..	..		..		..		..				..				..		..		..		..		..		..		..		..		..		..		..		..		..		..		..		..		..	
Shikarpur.	Wheat, 2nd Sort	15	8	15	8	15	8	15	8	14	0	14	4			14	0	14	4	14	8	14	8	16	12	14	8	14	12	14	12	15	4	15	4	14	8	16	0	14	8	14	0	14	8	Not given.		14	8	14	8	16	0
	Rice do. ..	20	0	16	0	17	0	18	4	16	0	16	0			16	0	17	0	16	0	16	0	16	0	16	0	16	0	14	12	16	0	16	0	16	0	16	0	12	4	13	5	13	5			13	8	12	8	12	
	Bajri do.	..		..		32	0	32	0	32	0	35	4			25	8	25	8	29	0	27	0	26	0	30	0	28	0	32	0	29	0	27	0	24	0	..		27	8	29	0	..				..		26	10	..	
	Jowari do. ..	32	0	23	0	30	0	22	8	32	0	30	0			28	0	26	0	29	0	33	8	29	0	33	0	33	0	32	0	32	0	29	0	30	0	30	0	29	0	26	8	26	0	23	12			22	14	26	10	26	8
Upper Sind Frontier.	Wheat, 2nd Sort	15	0			15	0	15	0	15	0	15	0	14	8	14	0	14	8	15	0	14	8	14	8	15	0	14	8	14	8	13	8			14	8	14	8	14	8	14	8	Not given.		14	8	13	8	14	8
	Rice do. ..	13	8			13	8	13	8	12	0	13	8	13	8	11	8	11	8	13	8	12	12	12	12	12	8	13	8	13	5	13	0			13	5	13	5	11	8	11	8			11	8	11	8	11	8
	Bajri do.																																																	
	Jowari do.	..		..		..		..		25	8	25	8			..		..		29	0	..		..		..		25	8	..										32	8	29	0			22	8	24	0	29	0

[Section I.

GENERAL POPULATION AND VITAL STATISTICS.

Standard table of population and area.

5. Before reviewing the vital statistics for the year, it will be convenient to follow Mr. Lumsdaine's practice of commencing with a table showing the area of the several Registration Divisions and Districts, together with the enumerated population in each, and its density.

The total population of the Presidency, including the Military, amounted at the census of 1881 to—

Males	...	8,497,718
Females	...	7,956,696
Total	...	16,454,414

The total area occupied by this population is 123,860 square miles, and the average density was 132·85 per square mile. Omitting the quasi-desert district of the Thar and Párkár where there were only 15·98 persons to a square mile the lowest density was found in the Karáchi Collectorate where it amounted to only 33·91 persons per square mile. If we exclude Sind and Bombay City where it reached the very high figure of 35,145·27 persons per square mile, the density of population will be found to vary from 107·85 in the Kánara District to 500·18 in the Kaira Collectorate, the general average for all the districts being 174·37 persons to a square mile.

By divisions Gujarát was the most thickly populated as in it there were 281·33 persons to the square mile. The Konkan with 256·17 persons to a square mile shows the next highest density, the Southern Deccan with 172·93 comes next, and the Northern Deccan follows with 131·18, whilst Sind is the most sparsely populated of all the districts as there were only 50·55 persons to a square mile living in it at the census of 1881.

Table showing for the Districts named, the Area, the enumerated Population by the Census of 17th February 1881, and the number of Persons per Square Mile.

Divisions.	No.	Registration Districts.	Area in square miles.	Enumerated Population.			Persons per square mile.
				Males.	Females.	Persons.	
Northern Deccan.	1	Khándesh	9,944	632,468	604,763	1,237,231	124·42
	2	Nasik	5,940	397,404	383,802	781,206	131·51
	3	Ahmednagar	6,666	381,692	369,626	751,228	112·69
	4	Poona	5,348	455,101	445,520	900,621	168·40
	5	Sholápur	4,521	294,814	287,673	582,487	128·84
Southern Deccan.	6	Sátára	4,988	532,525	529,825	1,062,350	212·98
	7	Belgaum	4,657	434,485	429,529	864,014	185·53
	8	Dhárwár	4,535	442,025	440,872	882,507	194·68
	9	Kaládgi	5,757	317,611	320,882	638,493	110·90
Konkan.	10	Kánara	3,911	223,005	198,835	421,840	107·85
	11	Ratnágiri	3,922	473,053	524,037	997,090	254·22
	12	Kolába	1,466	191,952	189,697	381,649	253·11
	13	Bombay City	22	464,763	308,433	773,196	35,145·27
	14	Thána	4,243	468,236	440,312	908,548	214·12
Gujarát.	15	Surat	1,662	306,015	308,183	614,198	369·55
	16	Broach	1,453	168,482	158,448	326,930	225·00
	17	Kaira	1,609	426,781	378,019	804,800	500·18
	18	Panch Mahála	1,613	131,162	124,317	255,479	158·38
	19	Ahmedabad	3,821	439,394	416,930	856,324	224·10
Sind.	20	Karáchi	14,115	265,988	212,700	478,688	33·91
	21	Hyderabad	9,030	407,243	347,381	754,624	83·57
	22	Thar and Párkar ...	12,729	112,400	90,944	203,344	15·98
	23	Shikárpur	10,001	461,033	391,953	852,986	85·29
	24	Upper Sind Frontier ...	1,877	70,166	54,015	124,181	66·16

ABSTRACT.

Northern Deccan ...	32,419	2,161,389	2,091,384	4,252,773	131·18
Southern Deccan ...	19,937	1,726,656	1,721,108	3,447,764	172·93
Konkan	13,594	1,821,009	1,661,314	3,482,323	256·17
Gujarát	10,158	1,471,834	1,385,897	2,857,731	281·33
Sind	47,752	1,316,830	1,096,993	2,413,823	50·55
The Presidency ...	123,860	8,497,718	7,956,696	16,454,414	132·85

Note.—This table includes the military population, amounting to 35,660.

Territorial change.

6. Under Government Resolution, Revenue Department, No. 6790, dated 12th September 1883, the táluka of Panvel (including the Uran Mahál) was transferred from 1st October 1883 from the Thána to the Kolába Collectorate for revenue as well as magisterial purposes. The vital statistics for this táluka are however still included in the Thána Collectorate. They will in the next report be shown under the Kolába District from 1st January and those regarding vaccination from 1st April 1884.

BIRTHS.

Number of registered births.

7. In the Presidency of Bombay, including Sind, during 1883 the births of 261,966 males and 239,835 females, or a total of 501,801 children, were recorded against 255,927 boys and 235,419 girls, or a total of 491,346 children, in 1882. The births for 1883 are thus 10,455 in excess of those for the previous year, whilst they exceed the mean of the preceding 10 years ending 1882 by 154,391.

Birth-rate in 1883 compared with previous years from 1873 to 1882.

8. The following table shows the number of births registered in each year from 1873 to 1883, their ratios per 1,000 of population and the proportion of males to females. The ratios are calculated on the total population, not as hitherto on the total of male and female populations :—

Years.	Number of Births registered.			Ratio per 1,000 of Population.			In every 100 born there were		For every 100 Male births the Females were
	Males.	Females.	Persons.	Males.	Females.	Persons.	Males.	Females.	
1873	*152,520	*137,799	*290,319	9·39	8·49	17·88	52·54	47·46	90·35
1874	174,966	157,842	332,808	10·81	9·75	20·56	52·57	47·43	90·21
1875	178,892	161,937	340,829	11·05	10·01	21·06	52·49	47·51	90·52
1876	181,872	163,612	345,484	11·24	10·11	21·35	52·64	47·36	89·96
1877	164,262	147,399	311,661	10·15	9·11	19·26	52·75	47·25	89·73
1878	128,848	114,405	243,253	7·96	7·07	15·03	52·97	47·03	88·79
1879	151,460	136,410	287,870	9·35	8·41	17·74	52·61	47·39	90·06
1880	135,285	175,588	370,873	12·03	10·82	22·85	52·66	47·34	89·91
1881	239,912	219,745	459,657	14·58	13·35	27·93	52·19	47·81	91·59
1882	255,927	235,419	491,346	15·35	14·21	29·86	52·09	47·91	91·98
Mean for 10 years ...	182,394	165,016	347,410	11·21	10·14	21·35	52·50	47·50	90·47
1883	261,966	239,835	501,801	15·92	14·58	30·50	52·20	47·80	91·55

* *N.B.*—Inclusive of still-born.

It is satisfactory to notice the progressive improvement that, except in the 3 years of famine, has taken place in the registration of births, yet the birth-rate for 1883 (30·50 per 1,000) is below the birth-rate of some European countries, as will be seen from the following table :—

Country.	Mean Annual birth-rate, 1853—74.	Highest Annual rate.	Lowest Annual rate.
Austria	39·9	44·2	34·7
Prussia	37·8	40·1	33·8
Spain	37·2	39·3	34·4
Italy	37·1	39·1	34·9
England and Wales	34·9	36·2	33·3
Netherlands	34·5	36·1	31·7
Sweden	31·9	35·0	27·5
Denmark	31·6	33·8	29·5
France	26·1	28·0	22·6

Comparison between the number of births registered in each division and district for 1883 with the number for 1882 and mean for 10 years.

9. The next table shows the number of births registered in 1883 in each division and district of the Presidency constrasted with those for 1882 and the mean for 10 years:—

Division	Number.	Registration Districts.	Population according to Census of 1881.	Mean for 10 years, 1873–82.		1882.		1883.	
				Number of Births.	Ratio per 1,000 of Population.	Number of Births.	Ratio per 1,000 of Population.	Number of Births.	Ratio per 1,000 of Population.
Northern Deccan.	1	Khándesh	1,237,231	26,327	24·60	43,114	34·85	39,876	32·23
	2	Násik	781,206	19,923	26·79	27,473	35·17	24,214	30·99
	3	Ahmednagar	751,928	21,209	27·56	29,386	39·12	28,571	38·03
	4	Poona	900,621	18,574	20·50	24,754	27·48	25,705	28·54
	5	Sholápur	582,487	12,726	18·42	20,138	34·57	20,634	35·42
Southern Deccan.	6	Sátara	1,062,350	29,516	27·81	41,497	39·06	40,737	38·35
	7	Belgaum	864,014	24,362	26·37	32,477	37·59	35,078	40·60
	8	Dhárwár	882,907	25,933	26·82	36,257	41·06	38,927	44·09
	9	Kaládgi	638,493	14,102	18·07	22,678	35·52	22,436	35·14
Konkan.	10	Kánara	421,840	11,639	28·87	12,625	29·93	13,803	32·72
	11	Ratnágiri	997,090	15,543	15·32	20,622	20·68	19,976	20·03
	12	Kolába	381,649	6,385	17·90	9,178	24·05	10,252	26·86
	13	Bombay City	773,196	14,293	21·33	15,094	19·52	14,932	19·31
	14	Thána	908,548	20,115	23·40	25,898	28·50	26,643	29·32
Gujerát.	15	Surat	614,198	15,681	25·77	21,833	35·55	21,610	35·18
	16	Broach	326,930	6,467	18·71	9,342	28·58	10,958	33·26
	17	Kaira	804,800	19,984	25·39	26,441	32·85	28,986	36·00
	18	Panch Mahála	255,479	5,171	21·22	6,813	26·67	6,629	25·95
	19	Ahmedabad	856,324	18,001	21·56	23,392	27·32	26,917	31·43
Sind.	20	Karáchi	478,688	5,128	11·80	9,871	20·62	9,005	18·81
	21	Hyderabad	754,624	5,746	7·89	8,767	11·62	12,010	15·92
	22	Thar and Párkar ...	205,344	2,671	14·42	5,061	24·69	5,878	28·91
	23	Shikárpur	852,986	7,148	9·03	17,330	20·32	15,865	18·60
	24	Upper Sind Frontier ...	124,181	768	7·93	1,305	10·51	2,197	17·69

ABSTRACT.

Northern Deccan	4,252,773	98,739	23·62	1,44,865	34·06	1,39,000	32·68
Southern do.	3,447,764	93,913	25·16	1,32,909	38·55	1,37,178	39·79
Konkan	3,482,323	67,973	20·37	83,417	23·95	85,606	24·59
Gujerát	2,857,731	65,304	23·16	87,821	30·73	95,062	33·26
Sind	2,413,823	21,461	9·59	42,334	17·54	44,955	18·62
Presidency ...	16,454,414	347,410	21·35	4,91,346	29·86	5,01,801	30·50

It will be seen from the abstract of the above table that the number of births registered in 1883 is higher in each of the divisions than that recorded in 1882 except in the Northern Deccan, in which only 139,000 births were registered against 144,865 in the previous year; but the registration still continues to be very defective in the Konkan and in Sind, and the carelessness exhibited in these 2 districts in this respect destroys the value of our statistics.

The total increase for the Presidency was 9·15 per 1,000 of population above the mean of the preceding 10 years, whilst in the following 13 districts, viz.:—

Poona,	Broach,
Sholápur,	Kaira,
Belgaum,	Ahmedabad,
Dhárwár,	Hyderabad,
Kánara,	Thar and Párkar,
Kolába,	Upper Sind Frontier.
Thána,	

the number of births in 1883 is higher than in 1882. The districts in which there was a falling off as compared with 1882 are as follows :—

Districts.	1882.	1883.
Khándesh	43,114	39,876
Násik	27,473	24,214
Ahmednagar	29,386	28,571
Sátára	41,497	40,737
Kaládgi	22,678	22,436
Ratnágiri	20,622	19,976
Bombay City	15,094	14,932
Surat	21,833	21,610
Panch Mahals	6,813	6,629
Karáchi	9,871	9,005
Shikárpur...	17,330	15,865

It is most disappointing again to notice, as Mr. Lumsdaine pointed out in his last report, that the registration of births, in the city of Bombay, shows no improvement although an increased registration establishment has, for upwards of 3 years, been entertained. The highest birth-rate in 1883 (44·09) took place in the Dhárwár Collectorate and the lowest (15·92) in the Hyderabad Zillah.

Diagram showing the number of births by districts and their ratio per 1,000 of population.

10. The diagram on the opposite page shows for each district the mean number of births for 10 years and the number registered in 1882 and 1883 and their ratio per 1,000 of population.

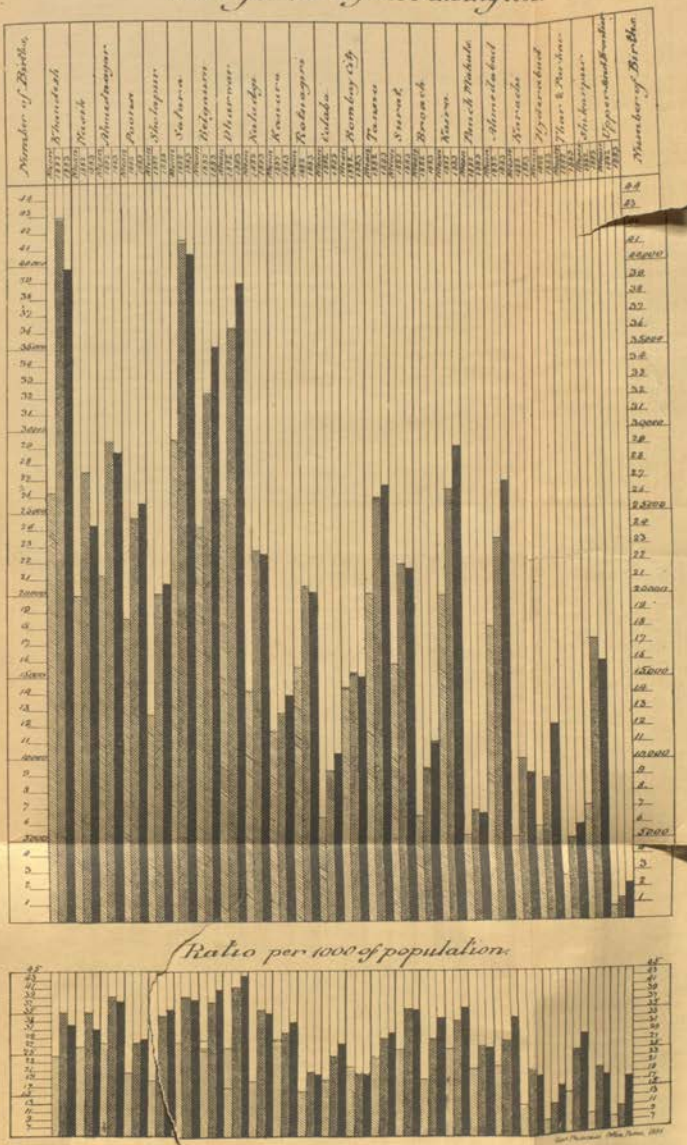
Birth registration in the urban and rural districts.

11. The birth-rate per 1,000 of population in the urban and rural population in each district of the Presidency during the years 1882 and 1883 is given in the following table :—

Districts.	Urban and Rural.	Population.	1882.	1883.
Khándesh	Urban ...	49,465	16·27	16·29
	Rural ...	1,187,766	35·62	32·89
Násik	Urban ...	48,535	36·38	29·94
	Rural ...	732,671	35·09	31·07
Ahmednagar	Urban ...	46,288	31·43	30·25
	Rural ...	704,940	39·62	35·50
Poona	Urban ...	147,376	17·15	17·70
	Rural ...	753,245	29·51	30·66
Sholápur	Urban ...	92,926	27·25	30·45
	Rural ...	489,561	35·96	36·34
Sátára	Urban ...	51,482	29·35	24·03
	Rural ...	1,010,868	39·56	39·08
Belgaum	Urban ...	54,190	22·02	22·62
	Rural ...	809,824	38·63	41·80
Dhárwár	Urban ...	91,071	46·32	40·40
	Rural ...	791,836	40·46	44·51
Kaládgi	Urban ...	7,024	33·60	27·76
	Rural ...	631,469	35·54	35·22
Kánara	Urban ...	24,390	33·37	34·19
	Rural ...	397,450	29·72	32·63
Ratnágiri	Urban ...	21,563	24·95	26·90
	Rural ...	975,527	20·59	19·88
Kolába	Urban ...	13,180	22·61	18·59
	Rural ...	368,469	24·10	27·16
Bombay City	Urban ...	773,196	19·52	19·31
	Rural ...	.....	...	...
Thána	Urban ...	37,717	12·20	11·75
	Rural ...	870,831	29·21	30·09
Surat	Urban ...	123,073	35·91	31·05
	Rural ...	491,125	35·46	36·22

Diagram

showing for each district the total number of registered births and their ratio per 1000 of population in 1882 and 1883 and the mean for the 10 years ending 1882.



Districts.	Urban and Rural.	Population.	1882.	1883.
Broach	Urban ...	48,760	13·60	25·94
	Rural ...	278,170	31·20	34·67
Kaira	Urban ...	67,614	28·22	28·22
	Rural ...	737,186	33·28	36·75
Panch Mahâls	Urban ...	25,736	19·86	15·39
	Rural ...	229,743	27·43	27·13
Ahmedabad	Urban ...	171,390	34·94	39·82
	Rural ...	684,934	25·41	29·34
Karáchi	Urban ...	68,332	43·68	47·90
	Rural ...	410,356	16·78	13·97
Hyderabad	Urban ...	45,195	19·45	23·59
	Rural ...	709,429	11·12	15·43
Thar and Párkar	Urban ...	2,828	13·44	15·91
	Rural ...	200,516	25·05	29·09
Shikárpur	Urban ...	83,073	21·87	18·84
	Rural ...	760,913	20·15	18·57
Upper Sind Frontier ...	Urban ...	11,352	12·95	13·13
	Rural ...	112,829	10·26	18·15
Presidency ...	Urban ...	2,105,756	25·07	25·07
	Rural ...	14,348,658	30·56	31·29

This table shows that in 1883 the birth-rates for the Presidency among the urban and rural population were respectively 25·07 and 31·29 against 25·07 and 30·56 in 1882; it also shows that the birth-rates recorded among the rural population of each district except in Kánara, Ratnágiri, Ahmedabad, Karáchi, Hyderabad and Shikárpur were higher than the birth-rates registered in the town circles. This is particularly noticed in the following districts:—

Districts.	Rural.	Urban.
Khándesh	32·89	16·29
Poona	30·66	17·70
Sátára	39·08	24·03
Belgaum	41·80	22·62
Thána	30·09	11·75
Panch Mahâls	27·13	15·39
Thar and Párkar	29·09	15·91

whilst in the undermentioned six districts the reverse is the case and the birth-rates in the rural circles are lower than in the urban:—

Districts.	Rural.	Urban.
Kánara	32·63	34·19
Ratnágiri	19·88	26·90
Ahmedabad	29·34	39·82
Karáchi	13·97	47·90
Hyderabad	15·43	23·59
Shikárpur	18·57	18·84

Birth-rate in districts compared with that of towns.

12. The next table compares the birth-rate of each town with that of the district in which it is situated :—

Districts.	Recorded Birth-rate of District in 1883.	Town Circles.	Recorded Birth-rate in 1883.
		Dhulia	6·50
Khándesh	32·23	Nandurbár	11·84
		Chopda	19·52
		Nasirabad	32·51
Násik	30·99	Násik	24·94
		Yeola	35·00
Ahmednagar	38·03	Ahmednagar	28·39
		Sangamner	46·27
Poona	28·54	Junnar	32·87
		Poona City	19·54
Sholápur	35·42	Sholápur	25·46
		Bársi	24·37
		Pandharpur	53·99
Sátára	38·35	Sátára	27·66
		Wái	12·68
		Karád	26·54
Belgaum	40·60	Belgaum	18·08
		Gokák	38·91
		Athni	29·24
Dhárwár	44·09	Dhárwár	27·21
		Hubli	45·45
		Gadag-Betgeri	50·47
		Ránebennur	40·58
Kaládgi	35·14	Kaládgi	26·05
Kánara	32·72	Kárwár	32·56
		Kumta	36·31
		Vengurla	27·05
Ratnágiri	20·03	Ratnágiri	26·79
		Alibág	27·13
Kolába	26·86	Mahád	10·58
Bombay City	19·31	Bombay City	19·31
		Thána	18·61
Thána	29·32	Kalyán	3·95
		Panvel	11·88
Surat	35·18	Surat	32·56
		Bulsár	18·52
Broach	33·36	Broach	21·57
		Jambusar	40·16
		Kaira	33·23
Kaira	36·03	Nadiád	31·90
		Borsad	21·02
		Kapadvanj	22·71
Panch Mahals	25·95	Godhra	6·22
		Dohad	19·04
		Ahmedabad	43·71
Ahmedabad	31·43	Gogha	35·54
		Viramgám	32·81
		Dholka	29·35
Karáchi	18·81	Karáchi	47·90
Hyderabad	15·92	Hyderabad	23·59
Thar and Párkar	28·91	Umarkot	15·91
		Shikárpur	19·04
Shikárpur	18·60	Sukkur	13·69
		Lárkhána	28·89
Upper Sind Frontier ...	17·69	Jacobabad	13·13

In Khándesh, in Nasirabad Town Circle only, the birth-rate, 32·51, exceeded the birth-rate of the district, 32·23; but I must remark that in the principal town Dhulia, which is the head-quarter station of the Collectorate, the births reported only amounted to 6·50 per 1,000 of population. In Chopda a birth-rate of 19·52 per 1,000 is recorded, whilst Nandurbár only shows a birth-rate of 11·84.

In the Násik Collectorate with 2 town circles the birth-rate of Yeola (35·00 per 1,000) is above the general birth-rate of the district—30·99; but at Násik, the principal town, and the head-quarter station of the Collectorate, a birth-rate of only 24·94 is returned.

In the Ahmednagar Collectorate there are 2 town circles. At Sangamner the births are evidently carefully registered, as the birth-rate (46·27 per 1,000) exceeds the general birth-rate of the district—38·03; but at Ahmednagar, the head-quarter station of the Collectorate, the birth-rate only equalled 28·39 per 1,000 of population.

The Poona Collectorate has 2 town circles. In Junnar the birth-rate (32·87) exceeded the general birth-rate of the district—28·54; but in Poona City, the head-quarter station, it was only 19·54.

In the Sholápur Collectorate there are 3 town circles. In Sholápur, the head-quarter station, and in Bársi the birth-rates 25·46 and 24·37 respectively are below the general birth-rate of the district—35·42; but Pandharpur occupies the highest place in all the town circles of the Presidency, as it shows a birth-rate of 53·99 per 1,000.

In Sátára Collectorate there are 3 town circles, viz., Sátára, the head quarter station, Wái and Karád. In all the birth-rates 27·66, 12·68 and 26·54 respectively are below the general birth-rate of the district—38·35.

The Belgaum Collectorate has 3 town circles. In Belgaum City, the head-quarter station, the birth-rate was only 18·08, and at Athni 29·24, which are much below the general birth-rate of the district—40·60. At Gokák better results were attained, as the birth-rate was 38·91 per 1,000.

In Dhárwár Collectorate there are 4 town circles and in Dhárwár, the head-quarter station, a birth-rate of only 27·21 per 1,000 was registered, the general birth-rate being 44·09. At Ránebennur the birth-rate 40·58 was below the district rate, but at Hubli 45·45 and at Gadag-Betgeri 50·47 it was above.

In the Kaládgi Collectorate there is only one town circle, viz., the head-quarter station Kaládgi, the birth-rate in which, 26·05, was below the general birth-rate of the district—35·14.

In the Kanára District there are 2 town circles in which the registration of births seems to be more carefully carried out than in the rural circles, as at Kárwár the birth-rate was 32·56 and at Kumta 36·31 against 32·72, the district rate.

In the Ratnágiri District birth registration seems to be neglected, as the general rate was only 20·03; but greater attention is paid to it in the town circles, as at Vengurla a birth-rate of 27·05 and at Ratnágiri a rate of 26·79 was recorded. These rates however are probably much below the true rate.

In the Kolába Collectorate there are 2 town circles. The head-quarter station Alibág only recorded a birth-rate of 27·13, but this is higher than the recorded birth-rate of the district—26·86; but the results in Mahád town circle are lamentable, as a birth-rate of only 10·58 was registered.

In Bombay City the recorded birth-rate was the low one of 19·31.

Registration in the town circles of the Thána Collectorate seems to be at a very low ebb. The recorded birth-rate of the district is only 29·32, but the results are even worse in the 3 town circles. In Thána, the head-quarter station, a birth-rate of only 18·61 per 1,000 was registered. In the large and important town of Kalyán the lowest birth-rate 3·95 of all the town circles was recorded, and Panvel is not much better—11·88. Such results prove that a very lax system must prevail, and is not creditable to the municipal administration of these towns.

The Surat Collectorate has 2 town circles. In the head-quarter station, Surat, a birth-rate of 32·56 is recorded, the district rate being 35·18. In Bulsár the recorded birth-rate was only 18·52.

In the Broach Collectorate there are 2 town circles. The district recorded birth-rate was 33·36, but at the head-quarter station, Broach, the recorded birth-rate only amounted to 21·57 per 1,000. At Jambusar the birth-rate 40·16 shows that much more attention is paid to this subject.

In the Kaira Collectorate there are 4 town circles, but in all of them the birth-rate was lower than the district rate 36·03. At Kaira it was 33·23, Nadiád 31·90, Borsad 21·02, Kapadvanj 22·71.

In the Panch Maháls the recorded district rate is 25·95. This is probably much below the true rate; but at Godhra a birth-rate of only 6·22 per 1,000 and at Dohad one of 19·04 was registered.

In the Ahmedabad Collectorate there are 4 town circles. The recorded birth-rate of the district is 31·43. In Ahmedabad City great attention appears to be paid to the registration, as it amounted to 43·71 per 1,000. In Gogha 35·54 and Viramgám 32·81 it was above the district rate, but at Dholka only a rate of 29·35 was attained.

In Sind the birth-rates recorded in the districts are very far from truth; but it is satisfactory to notice that in the Karáchi Collectorate, with a recorded district rate of 18·81, a birth-rate of 47·90 was registered in Karáchi, proving that great attention is paid to this subject by the municipality.

In Hyderabad Collectorate the district rate is only 15·92—the lowest of all the districts—and in Hyderabad City only 23·59.

Much greater attention appears to be paid to the registration of births in the Thar and Párkar Distrct than in any other Collectorates in Sind, for the district rate amounted to 28·91 per 1,000. At Umarkot town circle, however, the rate was only 15·91.

In the Shikárpur Collectorate there was a district rate of only 18·60, in Shikárpur City 19·04, in Sukkur only 13·69, whilst in Lárkhána a great improvement is noticed, as it amounted to 28·89.

In the Upper Sind Frontier the recorded district rate was only 17·69. Bad as these results are, they were worse in Jacobabad where the birth-rate was only 13·13.

I would venture to express a hope that Government may be pleased to invite the especial attention of the authorities to the very low birth-rate, as shown above, in some towns, whilst I think the undermentioned municipalities deserve credit for the attention they have paid to the registration of births:—

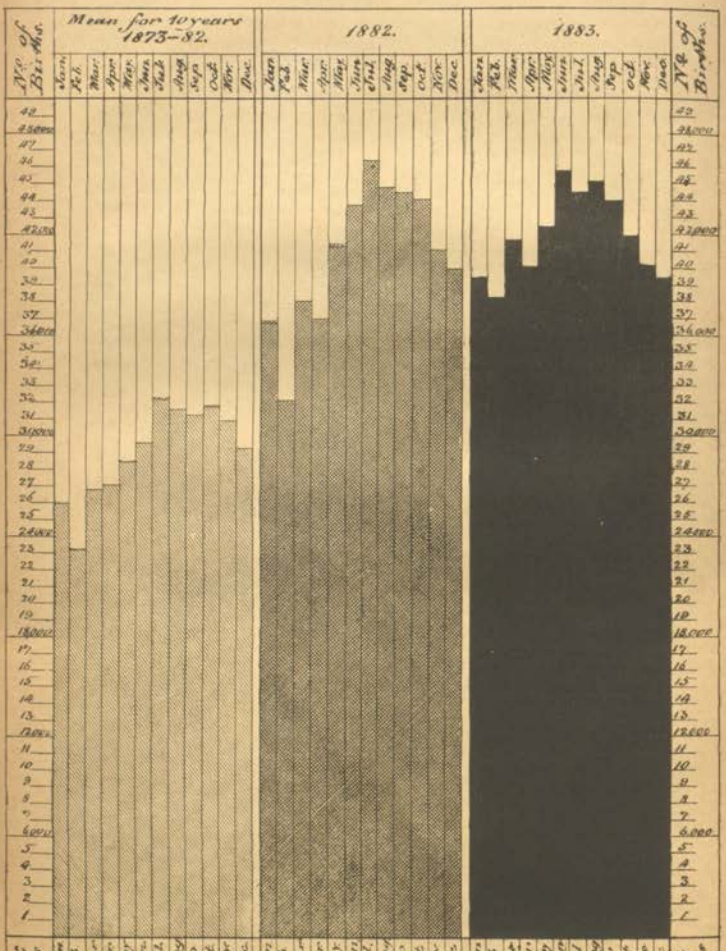
District.	Town.	Birth-rate.
Násik	Yeola	35·00
Ahmednagar	Sangamner	46·27
Sholápur	Pandharpur	53·99
Belgaum	Gokák	38·91
Dhárwár	Hubli	45·45
	Gadag-Betgeri ...	50·47
	Ránebennur	40·58
Kánara	Kumta	36·31
Broach...	Jambusar	40·16
Ahmedabad	Ahmedabad	43·71
	Gogha	35·54
Karáchi	Karáchi	47·90

13. The following table shows the monthly distribution of births in 1883 as compared with 1882 and with the monthly mean of the previous 10 years:—

Births by months.

Diagram

showing the number of births in each month in 1882 & 1883 and the mean for the 10 years ending 1882



Geo. Photozinco. Office Paris. 1884

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	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
Mean of 10 years, 1873—82.	36,045	33,843	36,697	36,941	38,425	39,465	39,189	41,320	37,160	33,679	30,805	29,296	347,410
1882	36,939	33,025	36,136	37,387	41,585	43,870	40,497	44,797	44,674	44,071	41,162	40,206	491,346
1883	39,289	38,098	41,457	39,920	42,295	45,504	44,460	41,073	43,956	41,831	40,301	39,622	501,806

In 1883 the greatest number of births was registered in June (45,504) and the least in February (38,098). The largest number of births usually occurs in the month of July, so that this year is somewhat abnormal, as will be seen from the diagram on the opposite page.

Birth and death-rates compared by districts.

14. The birth and death-rates in each district for 1882 and 1883 are given in the next table as well as the mean for the preceding 10 years :—

Districts.	Population according to Census of 1881.	Mean for 10 years, 1873—82.				1882.				1883.			
		Births.		Deaths.		Births.		Deaths.		Births.		Deaths.	
		Number.	Ratio per 1,000 of Population.	Number.	Ratio per 1,000 of Population.	Number.	Ratio per 1,000 of Population.	Number.	Ratio per 1,000 of Population.	Number.	Ratio per 1,000 of Population.	Number.	Ratio per 1,000 of Population.
Khándesh ...	1,937,737	98,827	24·00	74,053	17·98	83,114	24·85	97,504	29·07	99,878	29·73	51,921	15·97
Násik ...	741,336	19,379	20·79	15,184	16·45	17,473	20·37	19,849	24·77	24,214	30·09	20,404	25·80
Ahmednagar ...	751,139	21,209	27·59	14,414	19·21	20,598	30·13	14,658	19·51	23,571	34·60	18,260	26·56
Poona ...	900,221	20,950	19·43	19,434	21·60	24,754	27·45	18,671	17·84	26,705	29·54	20,743	29·00
Sholapur ...	562,457	13,736	18·87	17,414	25·00	20,438	34·37	13,995	18·99	20,654	35·42	16,958	29·13
Satára ...	1,002,200	29,534	27·51	27,153	25·65	31,467	29·66	24,025	22·62	40,712	38·26	24,891	27·15
Belgaum ...	959,054	24,507	20·37	20,193	17·45	31,417	27·09	26,015	20·17	35,979	40·60	19,209	17·29
Dhárwár ...	861,967	25,363	31·37	21,799	23·93	36,017	41·66	19,939	22·94	38,007	44·00	19,100	21·74
Kaládgi ...	630,462	14,182	18·07	25,170	29·16	23,678	35·54	17,199	19·16	27,436	39·74	13,699	19·46
Kánara ...	423,840	11,639	20·87	13,233	22·74	17,025	29·90	10,803	18·61	15,369	27·72	11,019	20·11
Ratnágiri ...	907,948	15,443	15·71	17,259	17·40	20,057	20·05	14,477	14·72	17,974	20·05	15,931	16·76
Kolába ...	563,049	9,385	17·00	8,878	16·43	9,178	21·05	7,277	13·97	10,233	20·63	8,931	17·93
Bombay City ...	773,196	14,208	21·20	21,103	29·05	15,594	19·15	20,759	20·14	14,961	19·71	22,259	29·68
Thána ...	908,549	20,113	23·40	15,893	18·61	20,971	25·03	16,077	19·19	25,041	29·23	24,894	28·82
Surat ...	614,198	15,681	26·77	10,503	17·79	21,855	39·54	14,007	22·81	23,439	35·18	19,335	31·44
Broach ...	328,906	6,367	19·74	5,474	16·79	8,383	29·04	6,454	20·01	10,968	33·06	8,114	27·00
Kaira ...	804,900	19,864	25·99	21,408	27·71	26,441	37·85	17,970	25·23	28,998	39·61	20,369	29·11
Panch Mahals ...	256,476	5,171	21·23	6,490	26·14	8,315	36·87	4,982	21·56	6,629	27·61	6,100	28·65
Khándesh ...	5,806,014	98,827	24·00	74,053	17·98	83,114	24·85	97,504	29·07	99,878	29·73	51,921	15·97
Násik ...	2,403,699	54,123	21·99	46,731	19·61	64,571	26·61	53,181	21·69	74,490	30·09	61,407	25·80
Sholapur ...	1,464,657	34,245	23·79	42,584	29·00	44,116	30·02	31,194	21·19	47,090	32·01	36,851	25·13
Thar and Parkar ...	309,344	5,677	18·17	5,395	17·09	5,961	24·89	5,466	17·39	5,878	29·01	5,636	19·76
Shikárpur ...	852,986	7,348	9·01	8,646	10·93	12,350	20·32	17,402	20·97	15,966	18·93	15,450	18·71
Upper Sind Frontier ...	134,182	786	7·90	417	6·43	1,366	10·74	1,339	9·96	3,197	17·69	1,141	9·79
Total ...	16,494,434	347,410	21·33	301,534	24·06	491,346	29·98	341,419	20·87	501,804	30·50	430,198	25·53

In Khándesh, Násik and Bombay City the birth-rates in 1883 were lower than the death-rates. This may perhaps, as regards Khándesh and Násik, be partly due to there having been a severe epidemic of cholera and small-pox, but in Bombay City it is clearly due to defective registration. In Ahmednagar and Poona Collectorates the birth and death-rates were nearly balanced. In all the other districts the recorded birth-rates are higher than the recorded death-rates. This is especially noticed in the following districts :—

Districts.	Birth-rates, 1883.	Death-rates, 1883.
Sátára	38·35	23·15
Belgaum	40·60	22·23
Dhárwár	44·09	21·74
Kaládgi	35·14	21·46
Kaira	36·03	25·11

It is most satisfactory to notice this fact especially in the districts of Belgaum, Dhárwár and Kaládgi which suffered so severely during the famine, and the high birth-rate prevailing in them not only proves that the fecundity of the people has returned to its normal state, but is in accordance with the law that

"after the ravages of plagues the births increase; for example, the London bills of mortality showed 64,544 christenings in the ten years 1651—60 before the great plague and in the ten years 1661—70, including the year of the great plague, 106,755 births".—*Farr.*

Diagram showing the number of births and deaths for 1882 and 1883 and the mean for 10 years.

15. The diagram on the opposite page shows the number of births and deaths for 1882 and 1883 and the mean for the preceding 10 years ending 1882.

Birth-rates in principal towns compared with their death-rates.

16. The subjoined table shows 24 of the principal towns in the Presidency and their population as enumerated at the census of 1881 as well as the birth and death-rates per 1,000 of population for 1882 and 1883:—

No.	Names of Towns.	Population according to Census of 1881.	1883.		1882.	
			Birth-rate per 1,000.	Death-rate per 1,000.	Birth-rate per 1,000.	Death-rate per 1,000.
1	Karáchi	68,332	47·90	25·19	43·68	25·51
2	Ahmedabad	124,767	43·71	40·80	41·13	41·20
3	Kaira	12,640	33·23	34·49	32·36	31·72
4	Kárwár	13,761	32·56	19·69	35·17	20·20
5	Surat	109,844	32·56	34·06	37·98	24·42
6	Ahmednagar	32,903	28·39	32·46	30·88	36·16
7	Sátára	29,028	27·66	24·28	32·70	21·53
8	Dhárwár	27,191	27·21	15·63	42·29	24·05
9	Alibág	6,376	27·13	37·95	24·15	21·80
10	Vengurla	8,947	27·05	26·83	23·70	25·60
11	Kaládgi	7,024	26·05	16·23	32·46	22·21
12	Sholápur	59,890	25·46	35·77	23·71	25·01
13	Násik	24,101	24·94	61·08	42·08	41·07
14	Hyderabad	45,195	23·59	28·36	19·45	28·83
15	Broach	37,281	21·57	28·11	7·96	13·38
16	Poona City	99,622	19·54	27·61	19·01	21·79
17	Bombay City	773,196	19·31	30·08	19·52	26·16
18	Shikárpur	42,496	19·04	17·32	21·98	21·49
19	Thána	14,456	18·61	19·78	17·71	16·74
20	Belgaum	23,115	18·08	20·55	15·96	16·66
21	Umerkot	2,828	15·91	33·95	13·44	50·21
22	Jacobabad	11,352	13·13	13·83	12·95	15·59
23	Dhulia	18,449	6·50	20·71	6·61	15·12
24	Godhra	13,342	6·22	12·29	14·54	13·34

In 1882 there was a higher rate for births over deaths in 12 of the principal towns, but in 1883 the birth-rate exceeded the recorded death-rate in only 8 towns, viz:—

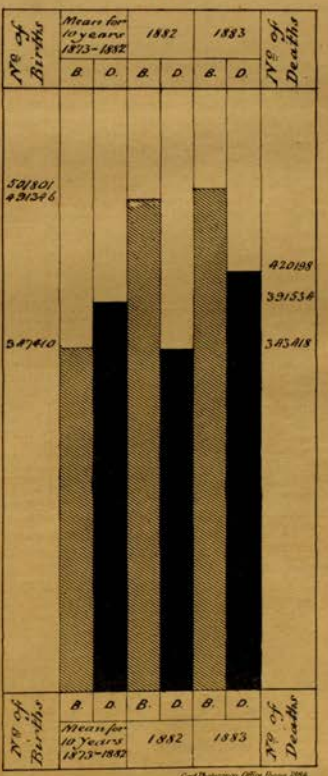
Towns.	Birth-rate, 1883.	Death-rate, 1883.
Karáchi	47·90	25·19
Ahmedabad	43·71	40·80
Kárwár	32·56	19·69
Sátára	27·66	24·28
Dhárwár	27·21	15·63
Vengurla	27·05	26·83
Kaládgi	26·05	16·23
Shikárpur	19·04	17·32

Birth-rates in Cantonments.

17. In 5 out of 7 Cantonments the birth-rates are lower than the death-rates. At Málegaon there seems to be a good system of registration, as the recorded birth-rate was 55·29

Diagram

Showing the number of births and deaths for 1882 & 1883 and the mean for 10 years ending 1882.



Govt. Photozincoo Office, Poona 1884

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per 1,000 of population against 43·65 in the preceding year; but in some of the remaining Cantonments the registration of births and deaths has undoubtedly been performed in a perfunctory manner, as will be seen from the following statement:—

Cantonment.	Birth-rate.	Death-rate.
Belgaum	9·18	9·18
Devláli	*8·08	15·16
Ahmednagar	12·86	23·53
Poona	6·87	18·29
Kirkee	15·72	16·55
Ahmedabad	12·71	23·48

I am very glad to be able to record that the subject has engaged the attention of the Quarter Master General of the Army during the year under report, and that we may hope in future years this important subject will receive the attention it deserves.

Still-born.

18. During 1883, 4,868 boys and 4,025 girls, or a total of 8,893 children, were registered as still-born. These births occurred in the following districts:—

District.	Recorded Births.	Still-born.			Percentage of Still-born to born alive.
		Urban.	Rural.	Total.	
Khándesh	39,876	...	398	398	1·00
Násik	24,214	53	217	270	1·12
Ahmednagar	28,571	5	693	698	2·44
Poona	25,705	7	128	135	0·52
Sholápur	20,634	14	201	215	1·04
Sátára	40,737	51	402	453	1·11
Belgaum	35,078	43	735	778	2·22
Dhárwár	38,927	120	615	735	1·89
Kaládgi	22,436	7	308	315	1·40
Kánara	13,803	53	706	759	5·50
Ratnágiri	19,976	14	153	167	0·84
Kolába	10,252	5	161	166	1·62
Bombay City	14,932	1,438	...	1,438	9·63
Thána	26,643	1	219	220	0·83
Surat	21,610	215	166	381	1·76
Broach	10,908	73	78	151	1·38
Kaira	28,998	2	269	271	0·94
Panch Mahális	6,629	7	57	64	0·97
Ahmedabad	26,917	273	112	385	1·43
Karáchi	9,005	145	78	223	2·47
Hyderabad	12,010	92	93	185	1·54
Thar and Párkar	5,878	2	133	135	2·30
Shikárpur	15,865	81	250	331	2·09
Upper Sind Frontier	2,197	9	11	20	0·91
Presidency ...	501,801	2,710	6,183	8,893	1·77

The high percentage of still-born to born alive in some districts, notably in Bombay, will, I hope, attract attention and investigation.

DEATHS.

Number of deaths.

19. In 1883 among the Civil population in the town, rural and Cantonment circles of the Presidency of Bombay the deaths of 221,110 males and of 199,088 females, or a total of 420,198 persons, were recorded. In the previous year 343,418 deaths, or 76,780

less than in 1883 were registered. The following statement shows the number of deaths registered in each year since 1872:—

1872...	...	...	367,057	1878...	...	...	532,951
1873...	...	...	290,972	1879...	...	...	387,542
1874...	...	...	278,652	1880...	...	...	328,673
1875...	...	...	375,718	1881...	...	...	381,450
1876...	...	...	368,260	1882...	...	...	343,418
1877...	...	...	627,708	1883...	...	...	420,198

Excluding the famine years (1877-78) the deaths in 1883 were far more numerous than in any year of the series.

Death-rate.

20. The computed death-rate per 1,000 of population in 1883 was 25·53 against 20·87 in 1882, the decennial mean being 24·06. Omitting Sind, where the mortuary registration is extremely defective, the death-rate in the other parts of the Presidency amounted to 27·32 per 1,000 of population.

Male and female death-rates.

21. The millesimal ratio of males dying to males living was 26·02 and of females dying to females living 25·02. In 1882 these ratios were respectively 21·40 and 20·31. For every 100 females who died 111·06 deaths among males were registered, but these proportions vary considerably in some of the districts. For example:—

In Ratnágiri the ratio of male to female deaths was		...	115·89 per cent.
„ Kolába	do.	...	116·05 „
„ Broach	do.	...	117·41 „
„ Kaira	do.	...	114·97 „
„ Panch Maháls	do.	...	118·94 „
„ Ahmedabad	do.	...	117·67 „

As usual the greatest discrepancies are to be found in Sind.

In Karáchi	123·60 male deaths were recorded for every 100	female deaths.
„ Hyderabad	131·94	do. do.
„ Thar and Párkar	133·43	do. do.
„ Shikárpur	128·51	do. do.
„ Upper Sind Frontier	144·33	do. do.

Deaths by divisions.

22. The following table shows for each Registration Division the population enumerated at the Census of 1881, the number of deaths recorded in 1883 by sexes and their ratios per 1,000 of population. The highest ratio was reported in the Northern Deccan and the lowest in Sind:—

Divisions.	Population by Census of 1881.			Number of Deaths.			Ratio per 1,000 of Population.		
	Males.	Females.	Persons.	Males.	Females.	Persons.	Males.	Females.	Persons.
Northern Deccan ...	2,161,389	2,091,384	4,252,773	78,504	71,511	1,50,015	36·32	34·19	35·27
Southern do. ...	1,726,056	1,721,108	3,447,764	39,324	37,369	76,693	22·77	21·71	22·24
Konkan	1,821,009	1,661,314	3,482,323	43,943	39,859	83,802	24·13	23·99	24·06
Gujarát	1,471,834	1,385,897	2,857,731	38,696	34,410	73,106	26·29	24·83	25·58
Sind	1,316,830	1,096,593	2,413,423	20,643	15,939	36,582	15·68	14·53	15·16
Presidency ...	8,497,718	7,956,696	16,454,414	221,110	199,088	420,198	26·02	25·02	25·53

Diagram showing deaths in 1882 and 1883 and the mean for 10 years.

23. The diagram on the opposite page shows the total number of deaths in 1882 and 1883 and the mean for the 10 years.

Deaths by districts.

24. The next table shows the deaths in each district in 1883 as compared with 1882 and the mean of the previous 10 years:—

Diagram

Showing the total number of deaths in 1882 & 1883 and the mean for the 10 years ending 1882.

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Divisions.	Numbers.	Registration Districts.	Population according to Census of 1881.	Mean for 10 years, 1873–82.		1882.		1883.	
				Number of Deaths.	Ratio per 1,000 of Population.	Number of Deaths.	Ratio per 1,000 of Population.	Number of Deaths.	Ratio per 1,000 of Population.
Northern Deccan.	1	Khándesh	1,237,231	24,055	22·48	27,304	22·07	51,922	41·97
	2	Násik	781,206	18,184	24·45	19,349	24·77	26,404	33·80
	3	Ahmednagar	751,228	19,474	25·31	14,658	19·51	28,988	38·56
	4	Poona	900,621	19,618	21·66	16,071	17·84	25,763	28·60
	5	Sholápur	582,487	17,481	25·30	11,063	18·99	16,958	29·11
Southern Deccan.	6	Sátára	1,062,350	27,115	25·55	24,035	22·62	24,581	23·15
	7	Belgaum	864,014	30,125	32·61	20,015	23·17	19,203	22·23
	8	Dhárwár	882,907	31,798	32·88	19,938	22·58	19,195	21·74
	9	Kaládgi	638,493	22,716	29·10	12,193	19·10	13,699	21·46
Konkan.	10	Kánara	421,840	13,213	32·78	10,803	25·61	11,018	26·11
	11	Ratnágiri	997,090	17,293	17·04	14,637	14·68	16,831	16·88
	12	Kolába	381,649	5,878	16·48	7,277	19·07	8,330	21·83
	13	Bombay City	773,196	21,493	32·07	20,229	26·16	23,259	30·08
	14	Thána	908,548	18,918	22·01	20,071	22·09	24,364	26·82
Gujarát.	15	Surat	614,198	16,563	27·22	14,007	22·81	19,316	31·44
	16	Broach	326,930	9,876	28·58	6,654	20·35	9,114	27·88
	17	Kaira	804,800	21,808	27·71	17,970	22·33	20,209	25·11
	18	Panch Maháls	255,479	5,400	22·16	4,083	15·98	4,390	16·83
	19	Ahmedabad	806,324	23,819	28·53	20,724	24·20	20,167	23·55
Sind.	20	Karáchi	478,888	6,781	15·61	8,807	18·40	7,173	14·98
	21	Hyderabad	754,634	8,228	11·30	11,090	14·58	10,922	14·47
	22	Thár and Párkar	263,344	3,235	12·06	3,498	17·20	3,896	19·16
	23	Shikárpur	852,986	8,646	10·92	17,802	20·87	13,450	15·77
	24	Upper Sind Frontier ...	124,181	817	8·44	1,230	9·90	1,141	9·19

ABSTRACT.

Northern Deccan	4,252,773	98,812	23·64	88,445	20·80	150,015	35·27
Southern do.	3,447,764	111,754	29·94	76,181	22·10	76,669	22·24
Konkan	3,482,323	76,795	23·24	73,017	20·97	83,802	24·06
Gujarát	2,857,731	77,466	27·47	63,438	22·20	73,106	25·58
Sind	2,413,823	26,707	11·94	42,337	17·54	36,582	15·16
Presidency ...	16,454,414	391,534	24·06	343,418	20·87	420,198	25·53

Khándesh.	Kolába.
Násik.	Bombay City.
Ahmednagar.	Thána.
Poona.	Surat.
Sholápur.	Broach.
Sátára.	Kaira.
Kaládgi.	Panch Mahála.
Kánara.	Thar and Párkar.
Ratnágiri.	

25. In the 17 marginally noted districts' the death-rate per 1,000 of population in 1883 was higher than in 1882, the difference being most marked.

In Khándesh where 41·97 deaths per 1,000 were registered against 22·07 in 1882.
„ Násik „ 33·80 do. 24·77 do.
„ Ahmednagar „ 38·56 do. 19·51 do.
„ Poona „ 28·60 do. 17·84 do.
„ Sholápur „ 29·11 do. 18·99 do.
„ Surat „ 31·44 do. 22·81 do.

It was also higher than the annual mean of the preceding 10 years in the following 12 out of the 24 districts, viz:—

Khándesh.	Thána.
Násik.	Surat.
Ahmednagar.	Hyderabád.
Poona.	Thar and Párkar.
Sholápur.	Shikárpur.
Kolába.	Upper Sind Frontier.

Death-rate by district in sequence.

26. The next table shows the deaths in 1883 by districts in sequence of highest rates which range from 41·97 per 1,000 in Khándesh to 9·19 in the Upper Sind Frontier. In 1882 the maximum ratio (26·16) was in Bombay City and the minimum (9·90) in the Upper Sind Frontier:—

Districts.	Number of Deaths.			Ratio per 1,000 of Population.		
	Males.	Females.	Persons.	Males.	Females.	Persons.
Khándesh	27,082	24,840	51,922	42·82	41·07	41·97
Ahmednagar	15,183	13,785	28,968	39·79	37·29	38·56
Násik	13,887	12,517	26,404	34·94	32·61	33·80
Surat	9,728	9,588	19,316	31·79	31·11	31·44
Bombay City ...	12,185	11,074	23,259	26·22	35·90	30·08
Sholápur	8,844	8,114	16,958	30·00	28·21	29·11
Poona	13,508	12,255	25,763	29·68	27·51	28·60
Broach	4,922	4,192	9,114	29·21	26·46	27·88
Thána	12,442	11,922	24,364	26·57	27·07	26·82
Kánara	5,806	5,212	11,018	26·03	26·21	26·11
Kaira	10,808	9,401	20,209	25·32	24·87	25·11
Ahmedabad	10,902	9,265	20,167	24·81	22·22	23·55
Sátára	12,654	11,937	24,591	23·76	22·53	23·15
Belgaum	9,959	9,249	19,208	22·92	21·53	22·23
Kolába	4,475	3,855	8,330	23·31	20·32	21·83
Dhárwár	9,662	9,533	19,195	21·86	21·62	21·74
Kaládgi	7,049	6,650	13,699	22·19	20·72	21·46
Thar and Párkar... ...	2,227	1,669	3,896	19·81	18·35	19·16
Ratnágiri	9,035	7,796	16,831	19·09	14·87	16·88
Panch Mahals	2,336	1,964	4,300	17·81	15·80	16·83
Shikárpur...	7,564	5,886	13,450	16·40	15·02	15·77
Karáchi	3,965	3,208	7,173	14·90	15·08	14·98
Hyderabad	6,213	4,709	10,922	15·26	13·56	14·47
Upper Sind Frontier ...	674	467	1,141	9·60	8·65	9·19
Total ...	221,110	199,088	420,198	26·02	25·02	25·53

Death-rate by sex.

27. The statement also shows that except in Bombay City, Thána, Kánara and Karáchi the death-rate for males everywhere exceeds that for females. In 1882 the female death-rate exceeded that of males in Bombay City and Shikárpur.

Deaths by ages.

28. The figures given below show the total deaths in 1883 under different ages, as also the ratio per 1,000 living, calculated on the population of each age period enumerated at the census of 1881 and the percentage on total deaths:—

Ages.	Deaths.	Ratio per 1,000 of Population.	Percentage on total Deaths.
Under 1 year	89,708	196·02	21·35
1 and under 5 years... ...	80,619	47·03	19·19
5 do. 10 „	24,786	10·38	5·90
10 do. 15 „	14,543	7·75	3·46
15 do. 20 „	16,135	12·53	3·84
20 do. 30 „	41,956	14·05	9·98
30 do. 40 „	40,019	16·27	9·52
40 do. 50 „	34,445	22·32	8·20
50 do. 60 „	34,378	34·38	8·18
60 and upwards	43,609	58·73	10·38
Total ...	420,198	25·54	100

29. The mortality amongst infants under 1 year and children above one year but under 5 is terribly high in comparison with other periods of life. In fact the deaths in children under 5 years of age formed 40·54 per cent. of the total deaths. The period of greatest immunity was in the period "above 10 and under 15", the rate being 7·75 per 1,000. For those "above 60 and upwards" the mortality was at the rate of 58·73 per 1,000. The percentage on total deaths amongst infants under one year is 21·35 against 22·11 in 1882. For those "above 1 and under 5" the percentage on total deaths is 19·19 against 16·72 in 1882. For old people "above 60 and upwards" the percentage on total deaths is 10·38 against 11·28 in 1882. The total deaths by sexes under the different ages in 1883 in each registration district are given in Annual Form IV. in the Appendix.

Deaths by caste or class.

30. The deaths by caste or class in each district are given in Annual Form No. V in the Appendix. By the census of 1881 the Mahomedan population numbered 3,107,171 persons, amongst whom there were in 1883, 57,522 deaths against 55,549 in 1882, the death-rate per 1,000 being 18·51 against 17·88. The Hindu population amounted to 13,128,587 persons, amongst whom 355,827 deaths or 27·10 per 1,000 of population were reported during 1883. In 1882 the total deaths amongst this community was 282,171, equal to a death-rate of 21·49 per 1,000. Among the Christian population numbering 138,326 persons, 2,690 deaths were reported during the year against 2,530 in 1882, the death-rate being 19·45 against 18·29. Under the heading "Other Castes" are included all those not belonging to either of the abovementioned sects who by the census of 1881 numbered 80,330 persons amongst whom during 1883 there were 4,159 deaths against 3,168 in 1882, the death-rate being 51·77 against 39·17 in 1882. For Mahomedans the maximum rate (42·51) during the year took place in Khándesh district and the minimum (7·98) in the Upper Sind Frontier. Last year these results were 29·87 and 8·39, and they were reported as having occurred in Bombay City and Upper Sind Frontier. Amongst Hindus the maximum rate (41·90) in 1883 was also in Khándesh District, and the minimum (16·59) in Ratnágiri. In 1882 they occurred in Thar and Párkar (33·37) and Ratnágiri (14·58). The maximum death-rate in this year amongst Christians was 39·05 and was reported from Dhárwár District, and the minimum (0·01) from Khándesh.

Deaths by causes.

31. The subjoined table shows the deaths in 1883 arranged according to the specified causes laid down by the Government of India and contrasted with the results for 1882 and the mean of the preceding 10 years :—

Deaths by Causes.	Mean for 10 Years, 1873—82.		1882.		1883.	
	Number.	Ratio per 1,000 of Population.	Number.	Ratio per 1,000 of Population.	Number.	Ratio per 1,000 of Population.
Cholera	21,621	1·33	7,904	0·48	37,954	2·31
Small-pox	6,522	0·40	1,630	0·10	13,404	0·81
Fevers	255,531	15·70	243,454	14·80	266,741	16·21
Bowel complaints	33,150	2·04	28,353	1·72	35,292	2·14
Injuries	6,440	0·40	5,913	0·36	5,978	0·36
All other causes	68,270	4·19	56,164	3·41	60,829	3·70
All causes ...	391,534	24·06	343,418	20·87	420,198	25·53

Deaths by months.

32. The monthly distribution of deaths in 1883 is shown in the following table constrasted with the deaths in 1882 and the mean for 10 years. As a rule as might be expected from its containing a fewer number of days February is the month in which the least number of deaths occur, and the maximum takes place in August, but during

1883 the greatest number of deaths (47,283) occurred in July, and the least (28,078) in October. In 1882 the greatest number (32,877) was in November and the least (24,000) in June :—

Months.	Deaths from all Causes.					
	Mean for 10 years, 1873–82.	Ratio per 1,000 of Population.	1882.	Ratio per 1,000 of Population.	1883.	Ratio per 1,000 of Population.
January	31,533	1·94	29,719	1·81	32,142	1·95
February	26,977	1·66	27,405	1·67	30,004	1·82
March	29,574	1·82	29,343	1·78	33,148	2·02
April	29,264	1·79	26,208	1·61	33,281	2·02
May	30,892	1·89	28,314	1·72	35,490	2·16
June	30,399	1·87	24,000	1·46	39,819	2·42
July	34,771	2·14	26,659	1·62	47,283	2·87
August	38,767	2·38	29,961	1·82	42,178	2·56
September	35,893	2·21	28,854	1·75	31,463	1·91
October	34,637	2·13	29,652	1·81	28,078	1·71
November	35,424	2·18	32,877	1·99	32,519	1·98
December	33,403	2·05	30,426	1·85	34,793	2·11
Year ...	391,534	24·06	343,418	20·87	420,198	25·53

Diagram showing deaths by months.

33. The diagram on the opposite page shows the number of deaths in each month in 1883 contrasted with the total in each month of 1882, and the mean number in the corresponding months of the preceding 10 years.

Deaths by circles.

34. The statistical returns are received from 223 rural and 55 town circles; from 7 cantonments in British and 9 in Foreign territories. The aggregate population by the census of 1881, of the rural circles is 14,348,658, of the town circles 2,044,601, and of the cantonments in British territory 61,155.

35. It has hitherto been usual in the annual reports to tabulate the causes of deaths by districts, but it is thought that the statistics of a district comprise too extended an area to show, even approximately, the incidence of mortality in its component parts and that for sanitary purposes, it will be useful to attempt a further subdivision so as to localize disease to as small a unit as possible. In this report therefore the causes of deaths are shown by tálukas which correspond to the rural registration circles and also by those towns which correspond to the urban registration circles in each district.

Khándesh.

36. During 1883 in the district of Khándesh, which is divided into 16 tálukas and 6 peths forming 22 rural registration circles and 4 towns (urban registration circles) and which contains 2,683 towns and villages and covers an area of 9,944 square miles, 51,922 persons died out of a population of 1,237,231, the death-rate of the district was therefore the very high one of 41·97 per 1,000 of population against 22·07 in 1882 and a decennial mean of 22·48.

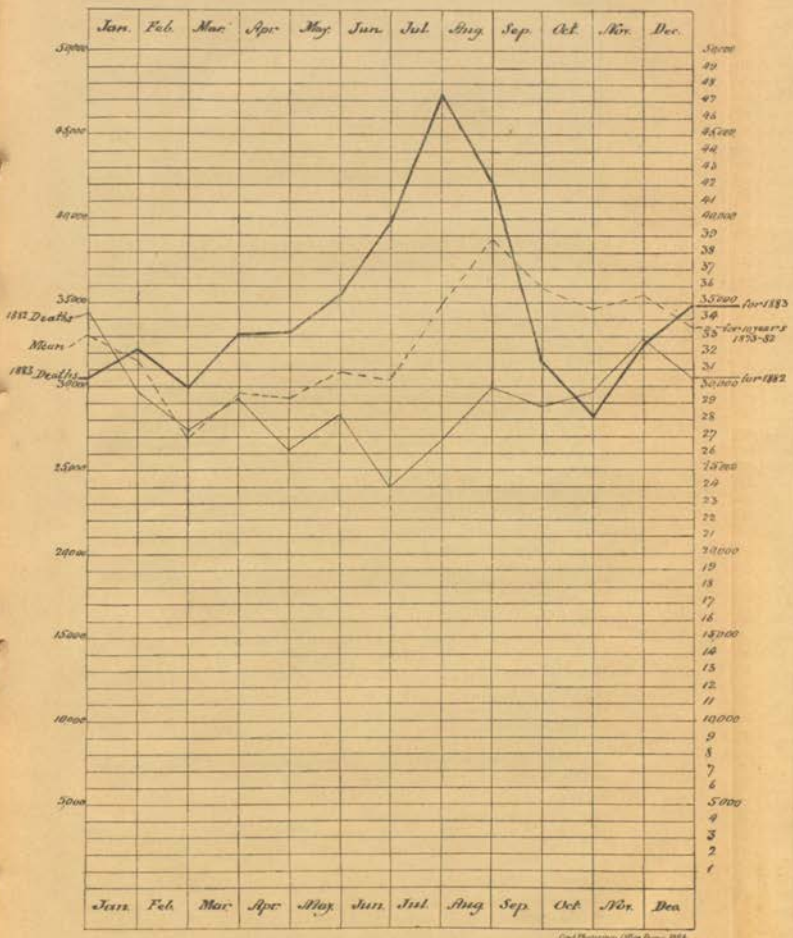
The maximum monthly mortality (10,007) took place in the district in July, and the minimum (2,372) in February.

Cholera commenced in May, attained its maximum intensity in July, and disappeared from the district in November after destroying 10,914 persons, or 8·82 per 1,000 of population.

Small-pox prevailed in the district throughout the year, 2,345 deaths being ascribed to it, whilst fever was above the decennial mean and was the cause of 30,569 deaths.

Diagram

showing the number of deaths registered in each month in 1882 & 1883 and the mean for the 10 years ending 1882.



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The following statement shows these deaths arranged by number, cause and ratio per 1,000 in each táluka and town in the district and compares the district rate with that of 1882 and the mean of the previous 10 years :—

District.	Registration Circles.	Population.	Number of Towns and Villages.	Deaths.													
				Cholera.		Small-pox.		Fevers.		Bowel Complaints.		Injuries.		Other Causes.		All Causes.	
				Number.	Ratio per 1,000.	Number.	Ratio per 1,000.	Number.	Ratio per 1,000.	Number.	Ratio per 1,000.	Number.	Ratio per 1,000.	Number.	Ratio per 1,000.	Number.	Ratio per 1,000.
Khándesh.	Dhulia R. C.	59,680	152	470	7·85	22	·37	1,918	32·45	286	4·81	32	·57	171	2·86	2,473	41·41
	Amalner "	58,580	225	741	6·33	43	·71	2,267	38·92	423	4·73	41	·64	99	1·64	3,736	61·97
	Pimpla Pétha "	20,372	139	1,073	11·61	71	·78	2,139	34·98	708	7·79	32	·25	189	2·07	4,213	68·78
	Erandol "	10,661	137	807	9·06	697	6·82	2,543	35·43	304	3·84	14	·14	86	·85	4,560	45·83
	Pachora "																
	Bhadgaon Pétha "	58,031	132	187	3·17	239	2·73	1,866	29·14	163	2·76	11	·19	49	1·11	2,615	34·19
	Chálisgaon "																
	Pimpalner "	97,549	226	408	3·69	13	·15	1,675	19·13	237	2·24	15	·17	25	·22	2,366	39·24
	Nizámpur Pétha "																
	Nandurbár "	54,095	196	156	2·78	90	1·61	1,845	34·01	158	2·92	10	·23	16	·29	1,745	31·16
	Taloda "	40,748	168	39	·78	14	·28	551	11·07	101	2·03	19	·38	4	·08	726	14·62
	Shirkhéda "	64,326	111	320	5·13	151	2·03	1,102	16·16	261	4·06	14	·22	155	2·16	2,003	32·05
	Virdel "	63,475	140	353	5·57	46	1·01	1,997	37·11	439	6·91	9	·15	82	1·30	2,875	45·47
	Shirpur "	45,353	89	309	6·45	9	·21	1,396	27·93	300	4·71	5	·12	8	·14	1,669	41·45
	Chopda "	45,005	91	620	7·19	18	·39	1,362	27·66	514	6·94	7	·15	14	·29	1,965	42·86
	Sávda "																
	Yával Pétha "	141741	182	2,208	15·58	349	2·46	4,596	30·71	1,112	7·84	44	·31	152	1·07	8,161	57·57
	Hirver do. "																
	Bhusával "	96,150	198	905	9·41	56	·59	2,734	32·24	575	5·98	13	·13	91	·95	3,384	40·60
	Edalabad Pétha "	10,220	87	428	7·30	68	1·15	1,537	25·94	466	7·80	21	·35	84	1·43	2,604	43·96
	Nasirabad "	49,535	158	1,480	17·84	259	3·22	2,726	32·63	428	5·00	23	·26	157	1·83	5,073	60·23
	Jámner "	83,533		1,480	17·84	259	3·22	2,726	32·63	428	5·00	23	·26	157	1·83	5,073	60·23
	Dhulia T. C.	18,482	1	137	7·41			676	9·03	18	·76	2	·10	80	3·49	923	20·71
	Sindkhéda "	6,941	1	39	5·71	49	7·16	130	19·00	16	2·30	2	·29	2	·44	238	34·94
	Chopda "	13,923	1	205	14·79	5	·36	253	17·84	1	·07	4	·29	2	·14	469	33·70
	Nasirabad "	10,343	1	107	10·35	92	9·28	326	38·60	9	·86	2	·20	.	..	536	49·29
	1883	1,237,231	2,695	10,914	8·82	2,546	1·90	30,569	24·71	6,567	5·14	395	·32	1,447	1·17	51,932	41·97
	1882	..	..	135	·11	132	·11	21,659	17·65	4,260	3·46	277	·22	725	·59	27,378	22·37
	Mean of 10 years, 1873—82	..	..	1,747	1·43	339	·28	18,945	15·43	3,327	2·71	309	·29	933	·77	25,653	22·43

N.B.—The deaths for pethas are included in those for their respective talukas as the population is not shown separately for them in the Census Report.

It will be at once apparent that the death-rate from all causes varies greatly in the different rural circles. In Jamner táluka the mortality reached the excessively high rate of 60·93 per 1,000. Cholera was extremely fatal in this táluka as shown by the very high rate of 17·84. Small-pox too prevailed to a great extent, the death-rate from this disease being the high one of 3·22 per 1,000, whilst the rate for fevers (32·63) was like that for cholera the highest in the district.

The next highest-death rate (57·57 per 1,000) took place in the Sávda Táluka and its pethas, in which cholera carried off 2,208 persons, or 15·58 per 1,000 of population. The ratio for small-pox was 2·46, whilst that for fever (30·31) is the second highest in the district.

The lowest death-rate (14·62 per 1,000) occurred in the Taloda Táluka, in which there were only 39 deaths reported from cholera and 14 from small-pox, whilst the fever rate was the very low one of 11·07 per 1,000. The very low death-rate in this táluka as compared with the rates of the remaining talukas makes me fear that all deaths occurring in it have not been reported.

The next lowest death-rate, 29·31, which is however more than double that of Taloda Taluka, is found in the Pimpalner Táluka and its Petha "Nizámpur": the rate from cholera was 5·69, from small-pox 0·15, from fevers 19·13.

I must also call attention to the high death-rates from bowel complaints throughout the district, the highest (7·84) being in Sávda Táluka, Erandol 7·79, Chopda 6·84. The contrast between the death-rates from this disease in the rural and most of the town circles is most marked.

Amongst the urban circles the lowest death-rate (20·71 per 1,000) took place in Dhulia, in which town, with a population of 18,449, no deaths from small-pox were reported. Remembering, however, how defective the registration of births is in Dhulia, I view the recorded results with some suspicion. The highest death-rate (49·29) was recorded in Nasirabad T. C. The death-

rate (10·45) from cholera was very high, whilst that from small-pox (9·08) was the highest in the district. The rate for fevers (28·60) was also high. It seems extraordinary that no deaths from other causes should have been reported in this town.

The rates for the other 2 towns—Nandurbár 34·94 and Chopda 33·59—were also high.

The mean death-rate in these towns during the last 5 years, compared with the death-rate in 1882 and 1883, was as follows :—

	Mean for 5 years.	1882.	1883.
Dhulia Town ...	16·47	15·12	20·71
Nandurbár „ ...	20·87	22·95	34·94
Chopda „ ...	16·90	14·36	33·59
Nasirabad „ ...	34·17	21·87	49·20

Násik.

37. The district of Násik is divided into 12 tálukas (rural circles), 2 town circles and 2 cantonment circles. The number of towns and villages in this district is 1,633 and its area covers 5,940 square miles. The population of the district is 781,206 persons. The total mortality in 1883 was 26,404 or 33·80 per 1,000 of population against 24·77 in 1882 and a mean of 24·45 in the preceding 10 years ending 1882.

The maximum monthly mortality (3,447) in this district occurred in the month of June and the minimum (1,388) in March.

Cholera made its appearance in the district in March, attained its maximum intensity in May, and disappeared in October after causing 4,193 deaths. The death-rate from small-pox was 0·67 against 0·04 in 1882 and a decennial mean of 0·63. The death-rate from fevers was 21·12 against 19·38 in 1882 and the mean of 17·70.

The following table shows these deaths arranged by number, cause and ratio per 1,000 in each táluka, town and cantonment in the district, and compares the district rate with that of 1882 and the mean of the previous 10 years :—

District.	Registration Circles.	Population.	Number of Towns and Villages.	Deaths. Cholera. Number.	Cholera. Ratio per 1,000.	Small-pox. Number.	Small-pox. Ratio per 1,000.	Fevers. Number.	Fevers. Ratio per 1,000.	Bowel Complaints. Number.	Bowel Complaints. Ratio per 1,000.	Injuries. Number.	Injuries. Ratio per 1,000.	Other Causes. Number.	Other Causes. Ratio per 1,000.	All Causes. Number.	All Causes. Ratio per 1,000.
Násik	Násik R. C.	67,950	133	879	12·94	19	·27	1,283	18·88	173	2·55	14	·21	234	3·44	2,580	37·99
	Sinnar „	40,092	99	564	9·24	120	1·92	1,078	17·67	204	3·37	10	·16	434	6·97	2,350	38·79
	Igatpuri „	68,149	126	310	4·76	...	...	928	13·95	99	1·42	6	·09	107	1·56	1,450	20·68
	Dindori „	73,250	128	435	6·00	2	·04	1,210	19·15	206	4·14	16	·22	344	4·78	2,407	33·30
	Nyhád „	97,558	111	511	5·84	81	·96	1,696	21·60	305	4·10	31	·34	535	7·05	3,209	42·77
	Chándor „	50,899	108	124	2·44	43	·84	987	17·46	122	2·70	7	·14	82	1·61	1,365	24·35
	Yeola „	35,597	117	84	2·36	30	·84	786	20·74	113	3·17	...	...	66	2·05	1,109	31·12
	Nándgaon „	30,809	86	107	2·03	43	1·41	709	21·06	86	2·84	6	·20	16	·52	1,009	32·56
	Málegaon „	74,730	144	196	2·60	46	·62	1,659	21·94	153	2·04	4	·05	25	·33	2,078	27·73
	Dindori „	64,875	155	174	2·68	24	·36	1,443	22·21	130	2·00	15	·22	52	·80	2,017	31·09
	Kalvan „	38,896	147	207	5·32	25	·64	1,026	27·03	224	5·75	14	·34	101	1·73	1,599	41·18
	Peint „	30,144	225	90	2·98	...	...	1,052	34·92	16	·53	12	·39	17	·56	1,094	36·91
	Násik T. C.	24,101	1	429	17·80	34	1·41	546	22·65	129	5·35	3	·12	330	13·69	1,472	61·06
	Yeola „	17,685	1	15	·84	34	1·92	232	13·11	64	3·61	3	·17	320	18·09	669	37·84
	Dayrdá Cb.	2,069	...	12	5·80	...	...	15	7·25	4	1·93	...	...	...	...	31	15·00
	Málegaon „	3,190	...	3	·94	1	·31	69	21·63	17	5·33	1	·31	74	23·20	165	51·72
	1883	781,206	1,633	4,193	5·36	525	·67	16,466	21·12	2,403	3·19	142	·18	3,584	4·59	26,404	33·80
	1882			591	·76	33	·04	15,137	19·38	1,831	2·34	147	·19	1,901	2·43	19,549	24·77
	Mean of 10 years, 1873–82			722	1·00	465	·63	12,166	17·70	1,551	2·09	170	·22	2,009	2·74	18,164	24·45

Amongst the rural circles the highest death-rate from all causes (50·79) was in Sinnar Rural Circle. Cholera was most fatal in this táluka as shown by the high rate of 8·54 per 1,000. Small-pox prevailed to a great extent, the death-rate (1·82 per 1,000) being the highest in all the rural circles, whilst the death-rate for fevers (29·02) was like that for small-pox the highest in the district.

The highest death-rate from cholera (12·94) took place in Násik Rural Circle.

The lowest death-rate from all causes (20·49) took place in Igatpuri Rural Circle, and the next lowest (24·85) in Chándor Rural Circle.

In the urban circles the exceptionally high death-rate of 61·08 per 1,000 took place at Násik. This was principally due to the epidemic of cholera; the death-rate from this disease alone was 17·76 per 1,000, whilst from fever 5·46 persons or 22·65 per 1,000 died. The high rate (5·35) for bowel complaints in this town also points to an impure water-supply.

At Yeola Town Circle there were only 15 deaths from cholera out of a population of 17,685 and the fever rate was the low one of 13·41, but the death-rate from all causes was the high one of 39·53.

Among Cantonments although there were 19 deaths from cholera in the Devláli Cantonment, the death-rate from all causes was the low one of 15·16 per 1,000. At Málegaon Cantonment there was a high death-rate of 43·65 per 1,000 from all causes, but there were only 3 deaths from cholera out of a population of 3,780 persons, but the death-rate (0·79) from this disease was the lowest in the district.

The mean death-rate in these towns during the last 5 years compared with the death-rates in 1882 and 1883 was as follows :—

	Mean for 5 years.	1882.	1883.
Násik Town	44·89	41·07	61·08
Yeola do.	31·02	30·93	39·53
Devláli Cantonment ...	7·21	20·25	15·16
Málegaon do. ...	40·85	36·50	43·65

Ahmednagar.

38. The district of Ahmednagar is divided into 11 rural, 2 towns and 1 cantonment circles. It contains 1,334 towns and villages and covers an area of 6,666 square miles. The population of the district is 751,228 and the number of deaths in 1883 was 28,968. The death-rate of the district was, therefore, very high, 38·56, against 19·51 in 1882 per 1,000 of population and a decennial mean of 25·31.

The maximum monthly mortality (6,246) took place in the district in July and the minimum (1,062) in February.

Cholera commenced in April, attained its maximum intensity in July, and disappeared from the district in November after destroying 7,368 persons or 9·81 per 1,000 of population. Small-pox was prevalent in the district throughout the year, and the rate for fever was above the decennial mean.

The following statement shows these deaths arranged by number, cause and ratio per 1,000 in each táluka, town and cantonment in the district, and compares the district rate with that of 1882 and the mean of the previous 10 years :—

District.	Registration Circles.	Population.	Number of Towns and Villages.	Deaths. Cholera. Number.	Cholera. Ratio per 1,000.	Small-pox. Number.	Small-pox. Ratio per 1,000.	Fevers. Number.	Fevers. Ratio per 1,000.	Bowel Complaints. Number.	Bowel Complaints. Ratio per 1,000.	Injuries. Number.	Injuries. Ratio per 1,000.	Other Causes. Number.	Other Causes. Ratio per 1,000.	All Causes. Number.	All Causes. Ratio per 1,000.
Ahmednagar	Nagar R. C. ..	71,458	108	744	10·41	6	·08	1,546	21·64	329	4·60	13	·18	259	3·62	2,897	40·54
	Akola ,, ..	60,300	156	356	5·86	46	·76	1,119	18·40	112	1·84	16	·26	230	3·81	1,880	31·17
	Jámkhed ,, ..	60,909	75	545	8·94	4	·07	1,561	25·62	230	3·77	20	·33	42	·68	2,412	39·96
	Párner ,, ..	75,781	122	1,098	14·90	62	·84	1,658	22·50	214	2·97	12	·16	307	4·05	3,317	45·01
	Shrigonda ,, ..	51,291	84	648	12·98	7	·14	1,082	21·10	118	2·30	5	·10	130	2·53	1,988	38·76
	Karjat ,, ..	54,830	79	359	7·44	5	·09	873	16·22	144	4·14	6	·17	71	2·04	1,156	33·20
	Nevása ,, ..	78,756	143	804	10·79	26	·48	1,378	19·30	207	2·85	11	·14	607	7·76	3,043	37·52
	Kopargaon ,, ..	69,749	121	637	9·90	21	·49	1,451	22·72	204	3·19	7	·11	151	2·36	2,491	38·39
	Sangamner ,, ..	59,561	131	662	11·11	11	·18	1,279	21·47	191	3·21	12	·20	226	6·62	2,554	42·81
	Shevgaon ,, ..	68,393	111	508	8·03	..	..	1,425	22·70	140	2·22	14	·22	135	2·13	2,429	38·30
	Shevgaon ,, ..	87,113	180	883	10·14	8	·10	1,878	21·54	443	5·08	33	·38	184	1·98	3,406	39·10
	Ahmednagar T. C. ..	32,903	1	145	4·41	131	3·98	265	8·05	117	3·56	7	·21	491	12·72	1,065	32·38
	Sangamner ,, ..	8,799	1	75	8·53	5	·59	131	14·89	3	0·34	1	·11	87	11·03	312	39·47
	Ahmednagar Ct. ..	4,589	..	6	1·31	1	·22	25	7·63	10	2·18	3	·65	33	11·50	108	23·53
	1883 ..	731,218	1,634	7,003	9·61	337	·47	15,606	20,77	2,477	3·02	154	·20	3,011	4·01	28,968	38·58
	1882 ..			182	·24	6	·01	10,713	14·26	1,368	1·82	166	·22	2,194	2·96	14,630	19·51
	Mean of 10 years, 1873–82 ..	1,410	1·93	283	·37	13,093	16·94	1,952	2·54	184	·24	3,011	3·29	19,474	25·31

Amongst the rural circles the highest death-rate from all causes (45·01) was in Párner Táluka. Cholera was extensively prevalent in this táluka and caused 1,098 deaths. The death-rate (14·90) is the highest in the district. The death-rate from small-pox being 0·84, whilst that of fevers was 22·50 per 1,000 of population.

The next highest death-rate (42·91 per 1,000) from all causes took place in Sangamner Táluka, in which cholera carried off 662 persons or 11·11 per 1,000 of population. The death-rate from small-pox in this táluka was 0·18 and that of fevers was 21·47 per 1,000. The high death-rate from bowel complaints in all the tálukas should attract attention, the highest (5·08) being in the Shevgaon Táluka.

The lowest death-rate (31·17) from all causes occurred in Akola Rural Circle, in which there were recorded 356 deaths from cholera and 46 from small-pox, the rates being 5·86 and 0·76 per 1,000 respectively. The death-rate for fevers was 18·40.

The next lowest death-rate (33·20 per 1,000) from all causes took place in Karjat Táluka. The death-rate from cholera was 7·44, from small-pox 0·09, and from fevers 19·32.

In the urban circles the lowest death-rate (32·46 per 1,000) took place at Ahmednagar, where 145 persons died from cholera out of a population of 32,903. The death-rate from this disease was 4·41, whilst that of small-pox, 3·98, is the highest in the district. The fever rate was 8·05. The highest urban death-rate (35·47 per 1,000) from all causes occurred in Sangamner town, in which 75 persons or 8·53 per 1,000 died from cholera. From small-pox there was a death-rate of 0·59 and from fevers 14·89.

The death-rate 23·53 per 1,000 of population in Ahmednagar Cantonment is the lowest in the district. There were only 6 deaths from cholera out of a population of 4,589 persons. From small-pox only one death was reported, which is satisfactory and shows that the vaccination in the cantonment is satisfactorily carried out. The death-rate for fevers was 7·63, the lowest in the district.

The mean death-rate in these towns during the last 5 years as compared with the death-rate in 1882 and 1883 was as follows:—

	Mean for 5 years.	1882.	1883.
Ahmednagar Town ...	38·37	36·16	32·46
Sangamner „ ...	22·78	21·94	35·47
Ahmednagar Cantonment...	18·83	16·62	23·53

Poona.

39. The district of Poona is divided into 8 rural, 2 town and 2 cantonment circles. It contains 1,185 towns and villages and covers an area of 5,348 square miles. The population of the district is 900,621 and the total number of deaths from all causes in 1883 amounted to 25,763 persons. The death-rate of the district was 28·60 per 1,000 of population against 17·84 in 1882 and a decennial mean of 21·66.

The maximum monthly mortality (3,995) took place in June and the minimum (1,397) in October.

Cholera broke out in January, but ceased in the same month. It re-appeared in April, attained its maximum intensity in June, and disappeared from the district in November after having carried off 5,279 persons or 5·86 per 1,000 of population. Small-pox was prevalent in the district throughout the year and caused 1,225 deaths or 1·36 per 1,000 against 0·56 in 1882 and a decennial mean of 0·37. The mortality from fevers in the district was high, the death-rate per 1,000 of population being 16·08 against 12·68 and a decennial mean of 14·61.

The following table shows these deaths arranged by number, cause, and ratio per 1,000 in each táluka, town and cantonment in the district, and compares the district rate with that of 1882 and the mean of the previous 10 years :—

District.	Registration Circles.	Population.	Number of Towns and Villages.	Deaths. Cholera. Number.	Cholera. Ratio per 1,000.	Small-pox. Number.	Small-pox. Ratio per 1,000.	Fevers. Number.	Fevers. Ratio per 1,000.	Bowel Complaints. Number.	Bowel Complaints. Ratio per 1,000.	Injuries. Number.	Injuries. Ratio per 1,000.	Other Causes. Number.	Other Causes. Ratio per 1,000.	All Causes. Number.	All Causes. Ratio per 1,000.
Poona	Junnar R. C.	91,000	153	908	10·00	241	2·67	2,075	22·58	169	1·84	27	·30	306	3·36	3,787	41·21
	Indapur „	48,114	88	206	4·28	11	·23	988	19·70	113	2·35	19	·39	88	·79	1,365	28·37
	Khed „	141,000	244	830	5·88	331	2·47	2,189	15·20	204	1·44	43	·30	276	1·95	3,811	26·46
	Sirur „	73,790	76	391	10·16	67	·92	1,471	20·22	150	2·06	25	·33	202	2·77	2,706	36·99
	Purandhar „	75,078	90	648	8·56	23	·46	1,286	16·34	109	1·44	29	·38	114	1·51	2,324	30·97
	Bhimthadi „	119,429	129	460	3·85	4	·04	1,874	15·15	139	1·17	29	·24	92	·84	2,287	21·50
	Haveli „	150,059	227	611	5·40	163	1·08	2,321	15·46	280	1·87	58	·39	293	1·95	3,876	25·83
	Mável „	67,392	164	122	1·81	76	1·12	961	15·07	135	2·16	14	·22	161	2·58	1,469	23·41
	Poona City T. C.	69,022	1	169	1·90	234	2·64	1,080	10·90	101	1·03	47	·47	1,009	10·28	2,731	27·62
	Junnar „	20,375	1	61	2·79	-	-	98	9·45	16	1·54	1	·10	144	13·88	320	29·89
	Poona Ct. „	20,120	1	9	·39	47	1·23	208	7·36	73	2·62	10	·35	100	6·51	551	19·20
	Kirkee „	7,222	1	4	·55	9	1·28	50	6·89	11	1·52	5	·69	43	6·02	120	16·55
	1883	900,621	1,185	5,279	5·86	1,225	1·36	14,469	16·08	1,525	1·69	281	·32	2,803	3·16	25,763	28·60
	1882			211	·23	506	·56	11,429	12·68	1,345	1·49	266	·29	2,225	2·46	16,071	17·84
	Mean of 10 years, 1873–82			1,482	1·64	339	·37	13,229	14·61	1,540	1·70	302	·33	2,715	3·00	19,618	21·66

The highest mortality from all causes amongst the rural circles is found in Junnar, in which the death-rate was the excessively high one of 41·21 per 1,000. Cholera was extremely fatal in this táluka as shown by the very high death-rate (10·36 per 1,000). Small-pox also prevailed to a great extent, the death-rate being 2·67 per 1,000, which is the highest in the district. The death-rate from fevers (22·58 per 1,000) was likewise very high and was the highest in the district.

The next highest death-rate (38·39 per 1,000) took place in the Sirúr Táluka, in which cholera caused 881 deaths, the death-rate being 12·10 per 1,000 is the highest in the district. The ratio from small-pox was 0·92, whilst that for fevers (20·22) is the next highest in the district. The high death-rate from bowel complaints throughout the district is very noticeable, the highest rate, 3·16, being in the Indápur Táluka.

The lowest death-rate (21·58 per 1,000) from all causes occurred in Bhimthadi Táluka, in which cholera caused a death-rate of 4·16 per 1,000, whilst the death-rate from small-pox (0·04) and from fevers (15·16) is the lowest amongst the tálukas.

The next lowest death-rate (25·45 per 1,000) from all causes, which is nearly the same as that of Haveli Táluka (25·83), took place in Khed Táluka, in which the rate from cholera was 3·80 per 1000, from small-pox 2·47 and fevers 15·29.

Amongst the urban circles in the city of Poona there was a death-rate of 27·61 per 1,000 of population from all causes. One hundred and eighty-nine deaths were reported from cholera or a rate of 1·90 per 1,000. The death-rate from small-pox (2·33) and that of fevers (10·90) is the highest urban rate registered.

The death-rate in Junnar town (29·89 per 1,000) of population from all causes is the highest amongst town and cantonment circles. There were 61 deaths from cholera or 5·88 per 1,000 of population. No death from small-pox was recorded in this town, whilst 88 deaths or 8·48 per 1,000 from fevers were registered.

Amongst the cantonments 9 deaths from cholera were reported in Poona Cantonment and 4 in Kirkee, the death-rate being 0·30 and 0·55 per 1,000 respectively. A death-rate of 1·23 per 1,000 from small-pox, 7·50 from fevers and 18·29 from all causes took place in the Poona Cantonment and 0·28 from small-pox, 6·89 from fevers and 16·55 from all causes in the Kirkee Cantonment. The death-rates from fevers and all causes in the Kirkee Cantonment are the lowest in the district.

The mean death-rate in these towns during the last 5 years compared with the death-rate in 1882 and 1883 was as follows :—

	Mean for 5 years.	1882.	1883.
Poona City ...	23·93	21·79	27·61
Junnar Town ...	23·50	16.87	29·89
Poona Cantonment ...	16·00	17·92	18·29
Kirkee do. ...		11·30	16·55

Sholápur.

40. The district of Sholápur comprises 7 rural and 3 town circles. It contains 712 towns and villages and covers an area of 4,521 square miles. The population of the district is 582,487 and the total number of deaths from all causes amounted to 16,958. The death-rate of the district was 29·11 per 1,000 of population against 13·99 in 1882 and a decennial mean of 25·30.

The maximum monthly mortality (2,945) took place in July and the minimum (688) in February.

Cholera commenced in April, reached its maximum intensity in July, and continued till December; 2,544 deaths or 4·37 per 1,000 were ascribed to it. Fifty-five deaths from small-pox were recorded against 4 in 1882, the death-rate per 1,000 being 0·09 and 0·01 against 0·22, the decennial mean. The death-rate from fevers was very high, 18·71 against 13·67 per 1,000 in 1882, and a decennial mean of 14·74.

The following table shows these deaths arranged by number, cause and ratio per 1,000 in each táluka and town in the district and compares the district rate with that of 1882 and the mean of the previous 10 years :—

Districts.	Registration Circles.	Population.	Number of Towns and Villages.	Deaths. Cholera. Number.	Cholera. Ratio per 1,000.	Small-pox. Number.	Small-pox. Ratio per 1,000.	Fevers. Number.	Fevers. Ratio per 1,000.	Bowel Complaints. Number.	Bowel Complaints. Ratio per 1,000.	Injuries. Number.	Injuries. Ratio per 1,000.	Other Causes. Number.	Other Causes. Ratio per 1,000.	All Causes. Number.	All Causes. Ratio per 1,000.
Sholápur	Sholápur R. C.	80,649	146	251	3·01	..	..	890	9·96	74	·82	40	·44	172	1·93	1,446	16·19
	Bársi ,,	90,599	132	266	2·14	14	·15	1,218	10·76	139	1·23	19	·20	197	1·67	1,552	13·77
	Mádha ,,	67,961	99	381	5·61	..	..	1,388	20·42	279	4·11	10	·15	204	3·00	2,262	33·28
	Karmála ,,	61,548	123	494	8·02	..	..	1,466	23·82	122	1·98	10	·16	227	3·69	2,329	37·82
	Pandharpur ,,	65,363	94	101	1·54	6	·09	1,020	15·73	121	1·85	21	·32	222	3·39	1,486	22·73
	Sángola ,,	42,849	76	203	4·73	1	·02	1,218	19·26	109	1·72	16	·25	274	4·26	1,821	28·93
	Málsiras ,,	58,522	66	218	4·09	11	·19	1,072	19·25	47	·81	7	·12	162	1·76	1,479	25·96
	Sholápur T. C.	49,860	1	185	3·96	14	·29	1,402	28·91	97	1·93	30	·45	230	3·61	2,142	35·77
	Bársi ,,	16,126	1	59	3·10	12	·74	324	20·78	41	2·24	0	·00	174	10·79	609	40·93
	Pandharpur ,,	16,910	1	185	10·94	2	·12	444	26·26	307	18·15	12	·71	147	8·69	1,097	64·58
	1883 ,,	582,487	717	2,544	4·37	55	·09	10,897	18·71	1,357	2·28	169	·32	1,886	3·24	16,908	29·11
	1882 ,,			886	·92	4	·01	7,662	13·67	904	1·55	153	·26	1,359	2·48	11,002	19·00
	Mean of 10 years, 1873–82			1,201	1·73	151	·22	10,152	14·74	1,004	2·44	227	·31	4,045	5·86	17,481	25·50

Amongst rural circles the highest mortality from all causes took place in Kármála Táluka, in which the death-rate was 37·82 per 1,000. Cholera was very fatal in this táluka as 494 deaths were reported; the death-rate (8·02) is the highest of all the tálukas. No deaths from small-pox were reported during the year, whilst from fevers the death-rate (23·82 per 1,000) is the highest of all the tálukas.

The next highest death-rate (33·29 per 1,000) occurred in Mádha Táluka, in which cholera carried off 381 persons or 5·61 per 1,000. In this táluka too there were no deaths recorded from small-pox. The death-rate from fevers was 20·42 per 1,000, but the high death-rate (4·11) for bowel complaints should attract attention.

The lowest death-rate (16·13 per 1,000) in the district is found in Sholápur Táluka, in which, however, 324 deaths from cholera took place, the death-rate being 3·61 per 1,000. From small-pox there were no deaths, whilst from fevers the death-rate was only 9·88 per 1,000 of population.

The next lowest death-rate (22·71 per 1,000) occurred in Bársi Táluka, in which the rate from cholera was 3·14 per 1000, from small-pox 0·15 and fevers 16·16.

Amongst the urban circles the enormously high death-rate of 64·58 per 1,000 from all causes was recorded in Pandharpur town, in which the rate for cholera was 10·94 per 1,000. These rates are more than double the rate of the district. The death-rate from small-pox was 0·12, whilst that of fevers, 26·26 per 1,000, which is the highest in the district, and the rate for bowel complaints was the enormously high one of 18·15 per 1,000.

The next highest death-rate (40·93 per 1,000) occurred in Bársi town, in which 50 deaths from cholera were reported or 3·10 per 1,000 of population. The rate from small-pox (0·74) in this táluka is the highest in the district. The death-rate from fevers was 23·19 per 1,000.

The highest death-rate (35·77 per 1,000 of population) took place in the town of Sholápur. The rate for cholera was 3·06, from small-pox 0·23 and fevers 24·91.

The mean death-rate in these towns during the last 5 years, compared with the death-rate in 1882 and 1883, was as follows:—

	Mean for 5 years.	1882.	1883.
Sholápur Town	50·92	25·02	35·77
Bársi ,, ...	38·51	32·87	40·93
Pandharpur ,, ...	51·05	43·94	64·58

41. The district of Sátára is divided into 12 tálukas (rural circles) and 3 town circles, and contains 1,343 towns and villages. It covers an area of 4,988 square miles. The population of the district is 1,062,350 and the total number of deaths in 1883 was 24,591, the death-rate being 23·15 per 1,000 against 22·62 in 1882 and a decennial mean of 25·55.

Sátára.

The maximum monthly mortality (3,000) took place in August and the minimum (1,292) in February.

Cholera commenced in April, attained its maximum intensity in August and continued in the district till the end of the year; 1,209 deaths or 1·14 per 1,000 of population were ascribed to it. Three hundred and eighty-five deaths were recorded from small-pox during the year against 3 in 1882. The deaths from fevers amounted to 17,980 or 16·93 per 1,000 against 15·43 in 1882 and a decennial mean of 17·74.

The following statement shows the deaths arranged by number, cause and ratio per 1,000 in each táluka and town in the district, and compares the district rate with that of 1882 and the mean of the previous 10 years:—

District.	Registration Circles.	Population.	Number of Towns and Villages.	Deaths. Cholera. Number.	Cholera. Ratio per 1,000.	Small-pox. Number.	Small-pox. Ratio per 1,000.	Fevers. Number.	Fevers. Ratio per 1,000.	Bowel Complaints. Number.	Bowel Complaints. Ratio per 1,000.	Injuries. Number.	Injuries. Ratio per 1,000.	Other Causes. Number.	Other Causes. Ratio per 1,000.	All Causes. Number.	All Causes. Ratio per 1,000.
Sátára	Sátára R. C.	99,565	147	81	·80	101	1·01	1,937	21·53	75	·83	27	·30	90	·90	2,311	23·04
Jávli	,, ,,	60,481	226	14	·23	25	·41	1,035	17·04	49	·80	21	·35	168	2·78	1,312	21·81
Wái	,, ,,	76,304	134	88	1·15	47	·61	1,377	17·97	36	·47	30	·39	156	2·03	1,734	22·64
Karád	,, ,,	120,143	103	212	1·63	37	·28	2,130	16·75	201	2·00	48	·37	422	3·23	3,050	23·36
Váles	,, ,,	109,409	136	119	·70	13	·07	2,160	12·66	204	1·79	57	·33	430	2·49	3,083	19·31
Tásgaon	,, ,,	79,704	49	103	2·03	4	·05	861	10·80	415	5·21	26	·33	247	3·10	1,715	21·52
Khánápur	,, ,,	60,327	91	113	1·41	4	·05	1,455	19·07	101	1·26	26	·33	151	1·89	1,617	20·11
Khatáv	,, ,,	74,027	84	63	·85	...	...	1,264	14·99	58	·80	21	·45	163	2·20	1,749	22·56
Mán	,, ,,	82,111	70	141	2·71	24	·46	1,292	24·79	37	·72	9	·17	194	3·72	1,897	32·27
Malcolmpeth	R. C.	5,040	...	...	...	...	...	21	9·54	3	·95	1	·23	14	4·31	49	15·09
Koregaon	,,	81,187	76	123	1·69	16	·20	1,604	19·76	93	1·15	24	·30	139	1·71	1,999	24·40
Pátan	,,	113,414	208	87	·35	66	·77	1,662	14·79	103	·91	26	·23	233	2·07	2,157	19·12
Sátára	T. C.	29,038	1	32	·41	16	·55	599	23·75	135	2·26	14	·48	149	5·13	765	26·25
Wái	,,	11,676	1	36	2·72	13	1·03	121	11·22	19	1·63	1	·08	59	4·78	251	21·67
Karád	,,	10,778	1	16	1·48	1	·09	152	14·10	30	2·78	3	·28	92	8·54	294	27·28
	1883	1,062,350	1343	1,209	1·14	385	·36	17,980	16·93	1,960	1·84	353	·34	2,698	2·54	24,591	23·15
	1882	2,406	2·26	3	...	10,395	15·43	1,614	1·71	257	·24	2,000	2·88	24,655	22·62		
	Mean of 10 years, 1873–82	2,097	1·96	130	·13	18,858	17·74	1,765	2·61	402	·38	2,816	2·65	27,115	25·55		

Amongst the rural registration circles the highest death-rate from all causes (32·37 per 1,000 of population) occurred in Mán Táluka, in which cholera carried off 141 persons or 2·71 per 1,000. Small-pox caused 24 deaths, the death-rate being 0·46, whilst the death-rate from fevers (24·79) was the highest in the district.

The next highest death-rates took place in Wái, Sátára, Karád and Khánápur tálukás, in which the death-rate from all causes ranged from 25·84 in Wái to 25·11 in Khánápur. Cholera was especially prevalent in Karád, but small-pox in the Sátára Táluka caused 101 deaths, equal to a death-rate of 1·11 per 1,000.

The death-rate from fevers was as follows:—

Sátára	...	...	21·53 per 1,000 of population.
Wái	...	...	20·42 do. do.
Khánápur	...	...	19·07 do. do.
Karád	...	...	16·75 do. do.

The lowest death-rate from all causes (15·09) was in Malcolmpeth Táluka, in which no deaths from cholera or small-pox were reported, whilst the death-rate from fevers (9·54) is the lowest in the district.

The next lowest death-rate (18·21) took place in Válva Táluka, in which 119 persons died from cholera and 12 from small-pox. The death-rate from fevers was 12·80 per 1,000 of population.

Amongst the urban circles the highest death-rate from all causes (27·28 per 1,000) occurred in Karád town, in which cholera caused the high rate of 1·48 per 1,000. Only 1 death took place from small-pox, whilst from fevers the rate was 14·10 per 1,000.

The lowest death-rate (21·49) was reported in Wái town, in which, however, the death-rate from cholera (3·25) is the highest in the district, and that of small-pox (1·03) is also a high one. The death-rate from fevers was 11·22 per 1,000 of population.

The death-rate for Sátára town was 24·28 per 1,000, the rate for cholera being 0·41, small-pox 0·55, fevers 13·75.

The mean death-rate in these towns during the last 5 years, compared with the death-rate for 1882 and 1883, was as follows :—

	Mean of 5 Years.	1882.	1883.
Sátára Town	27·89	21·88	24·28
Wái ,, ...	24·50	17·13	21·49
Karád ,, ...	27·44	29·22	27·28

Belgaum.

42. The district of Belgaum is divided into 7 tálukas (rural circles), 3 towns and 1 cantonment circle. It contains 1,077 towns and villages and covers an area of 4,657 square miles. The population of the district is 864,014 and the total number of deaths in 1883 from all causes amounted to 19,208, the death-rate per 1,000 being 22·23 against 23·17 in 1882 and a decennial mean of 32·61.

The maximum monthly mortality (1,934) took place in the district in August and the minimum (1,264) in February.

Cholera though present in January disappeared in that month, but reappeared in April, attained its maximum intensity in May, and disappeared from the district in November after causing 479 deaths during the year. Small-pox prevailed throughout the year to a great extent and caused 440 deaths against 47 in 1882. The death-rate was 0·52 against 0·05 per 1,000, the mean of 10 years being 0·39. The death-rate for fevers (11·07) was much below the decennial mean (16·09) and slightly below the rate in 1882 (11·50).

The following table shows these deaths arranged by number, cause and ratio per 1,000 in each táluka, town and cantonment in the district, and compares the district rate with that of 1882 and the mean of the previous 10 years :—

District.	Registration Circles.		Population.	Number of Towns and Villages.	Deaths.													
					Cholera.		Small-pox.		Fevers.		Bowel Complaints.		Injuries.		Other Causes.		All Causes.	
					Number.	Ratio per 1,000.	Number.	Ratio per 1,000.	Number.	Ratio per 1,000.	Number.	Ratio per 1,000.	Number.	Ratio per 1,000.	Number.	Ratio per 1,000.	Number.	Ratio per 1,000.
Belgaum	Belgaum R. C. ...		98,780	186	66	·66	20	·21	1,391	13·94	476	4·97	21	·21	212	2·21	2,159	21·87
	Sampgaon ,, ...		110,843	123	3	·03	34	·30	1,552	12·95	439	4·09	24	·20	439	3·96	2,549	23·73
	Pirál ,, ...		79,304	116	3	·04	2	·02	1,240	16·90	273	3·67	12	·16	324	4·40	1,866	25·19
	Chikodi ,, ...		245,514	313	59	·24	196	·80	3,150	9·73	1,097	9·16	69	·28	1,240	4·97	5,501	21·58
	Parasgad ,, ...		91,826	137	..	..	8	·09	966	10·52	494	4·49	17	·18	441	4·80	1,926	20·99
	Gokák ,, ...		80,772	113	106	1·31	66	·80	903	11·18	393	3·83	33	·40	348	4·02	1,849	22·41
	Athni ,, ...		94,771	89	100	2·00	24	·50	914	9·61	465	4·91	24	·25	693	7·15	2,222	24·16
	Belgaum T. C. ...		20,111	1	74	3·70	147	7·34	59	2·95	19	·95	22	1·10	152	7·56	473	23·52
	Gokak ,, ...		10,507	1	2	·19	1	·10	86	8·24	97	9·41	7	·66	57	5·50	251	23·91
	Athni ,, ...		11,184	1	58	5·19	..	..	115	10·64	69	7·06	4	·36	99	8·85	345	32·99
	Belgaum Cl. ...		9,582	..	..	..	3	·32	43	4·45	15	1·56	..	..	16	1·67	68	8·18
		1883 ...	864,014	1,077	479	·55	440	·52	9,537	11·07	3,819	4·42	271	·31	4,554	5·26	19,208	22·23
		1882 ...			1,376	1·58	47	·05	9,902	11·50	3,423	3·95	237	·27	4,963	5·72	20,055	23·17
	Mean of 10 years, 1873–82 ...				2,510	2·94	360	·39	14,013	16·16	2,858	3·67	266	·40	5,386	10·02	28,133	32·61

Among the rural circles the highest death-rate from all causes (25·18 per 1,000) took place in Bidi Táluka, in which although there were only 3 deaths from cholera and 2 from small-pox, the death-rate for fevers (16·90) is the highest in the district.

The lowest death-rate (20·00 per 1,000) from all causes was in Parasgad Táluka, where no death from cholera was recorded; the death-rate from small-pox being 0·09 and that of fever 10·52 per 1,000.

Amongst the town circles the death-rate from all causes (32·99 per 1,000) at Athni town is the highest in the district. Fifty-eight deaths from cholera took place in a population of 11,186, the rate being the high one of 5·18 per 1,000; this is also the highest rate in the district, whilst the rate for bowel complaints is the very high one of 7·96 per 1,000. No death from small-pox was recorded to have taken place in this town, whilst the death-rate for fevers was 10·64 per 1,000.

The lowest death-rate (20·55 per 1,000) occurred in Belgaum, in which no death from cholera was reported in 1883. Small-pox prevailed to a great extent in the town, the death-rate being 3·20 per 1,000, which is the highest in the district, whilst the death-rate for fevers was only 6·36.

From what I saw of the municipal management in Belgaum I am led to believe that the registration of deaths is very inadequately carried out, and I have no doubt that the death-rate is really much higher than what is represented.

The Cantonment of Belgaum shows a death-rate of 9·18 per 1,000. No deaths took place from cholera but 5 were reported from small-pox; the rate was 0·52 per 1,000. The death-rate 5·43 per 1,000 for fevers is the lowest in the district.

The high death-rate from bowel complaints both at Gokák and Athni point unmistakeably to an impure water-supply. I urged the importance of improving the sources of water-supply both on the municipal commissioners of each town and also on the Collector.

The mean death-rate in these towns during the last 5 years, compared with the death-rate for 1882 and 1883, was as follows:—

	Mean of 5 years.	1882.	1883.
Belgaum Town	30·20	16·66	20·55
Gokák ,, ...	28·24	37·45	22·51
Athni ,, ...	28·18	25·39	32·99
Belgaum Cantonment	35·23	12·73	9·18

Dhárwár.

43. The district of Dhárwár is divided into 11 tálukas and 3 pethas forming 14 rural circles and 4 town circles. It contains 1,285 towns and villages and covers an area of 4,535 square miles. The population of the district is 882,907 and the number of deaths from all causes during 1883 was 19,195. The death-rate per 1,000 of population was 21·74 against 22·58 in 1882 and a decennial mean of 32·88.

The maximum monthly mortality (2,293) took place in the district in December and the minimum (1,274) in February.

Cholera caused only 28 deaths during the year which were distributed over January, May, July, November and December.

Small-pox was prevalent in the district to a great extent and caused 493 deaths; there were only 13 deaths recorded from this disease in 1882. The death-rate (11·71 per 1,000) for fevers was much below the decennial mean of the previous 10 years (18·27).

The following statement shows these deaths arranged by number, cause and ratio per 1,000 in each táluka and town in the district, and compares the district rate with that of 1882 and the mean of the previous 10 years:—

District.	Registration Circles.	Population.	Number of Towns and Villages.	Deaths. Cholera. Number.	Cholera. Ratio per 1,000.	Small-pox. Number.	Small-pox. Ratio per 1,000.	Fevers. Number.	Fevers. Ratio per 1,000.	Bowel Complaints. Number.	Bowel Complaints. Ratio per 1,000.	Injuries. Number.	Injuries. Ratio per 1,000.	Other Causes. Number.	Other Causes. Ratio per 1,000.	All Causes. Number.	All Causes. Ratio per 1,000.
Dhárwár	Dhárwár R. C.	63,546	122	..	..	2	·02	1,326	14·33	322	3·48	23	·25	717	9·49	2,250	26·80
	Mugud Petha „																
	Hubli „	55,200	79	..	..	13	·23	746	13·49	270	4·88	8	·15	237	5·91	1,564	24·66
	Navalgund „	87,852	58	..	..	2	·02	943	10·79	287	3·27	20	·24	557	8·65	1,854	21·19
	Nargund Petha „																
	Gadag „	68,332	66	9	·11	79	·96	1,009	12·11	390	4·68	30	·36	469	5·63	1,976	23·71
	Mundargi Petha „																
	Kalghatgi „	50,709	103	1	·02	..	..	762	15·06	274	5·40	16	·32	208	5·79	1,324	26·08
	Ranibénur „	76,554	142	..	..	71	·93	971	12·68	407	4·69	39	·50	99	1·29	1,587	20·85
	Ron „	60,784	59	3	·05	100	1·65	617	10·16	378	6·22	13	·21	178	2·93	1,289	20·00
	Karajgi „	63,256	138	..	..	159	1·91	903	10·85	240	2·76	32	·38	242	2·91	1,576	18·91
	Hángal „	68,787	163	..	..	11	·13	944	14·75	196	2·91	25	·36	227	3·30	1,403	21·32
	Ránebennur „	64,011	121	15	·23	39	·51	694	10·84	249	3·89	16	·25	220	3·44	1,234	18·96
	Kod „	60,545	177	..	..	47	·62	866	9·96	230	2·64	25	·31	339	4·36	1,507	19·90
	Dhárwár T. C.	37,181	1	..	..	19	·66	198	7·32	56	2·06	19	·70	122	4·99	435	15·93
	Hubli „	36,627	1	..	..	3	·08	291	7·92	246	6·16	8	·22	208	7·09	817	22·27
	Gadag Betgeri „	17,001	1	..	..	9	·53	139	8·12	93	5·41	9	·53	141	8·28	392	22·88
	Ránebennur „	10,202	1	..	..	12	1·18	90	9·81	39	3·84	3	·29	73	7·15	221	21·66
	1883 ..	802,907	1,295	28	·03	468	·58	10,540	11·71	3,703	4·20	285	·32	4,020	4·45	19,185	21·74
	1882 ..			130	·15	13	·01	13,448	12·97	3,511	3·08	261	·22	4,554	5·16	19,928	22·58
	Mean of 10 years, 1873—82 ..	2,010	1·08	515	·23	17,667	18·27	4,092	4·85	302	·41	6,532	6·74	23,709	22·66		

N.B.—The deaths of pethás are included in their respective tálukas for want of population of those Pethás in the Census Report.

Amongst rural circles the highest death-rate from all causes (26·80) took place in Dhárwár Táluka and its Mugúd Petha, in which no deaths from cholera were reported in 1883. The death-rate from small-pox was 0·02, whilst that of fever was 14·53. In Kalghatgi Táluka, in which was the next highest death-rate (26·08), the death-rate for fevers (15·06 per 1,000) is the highest in the district.

The lowest death-rate (18·87 per 1,000) occurred in Karajgi Táluka, in which no deaths from cholera were recorded during the year, but small-pox prevailed in this táluka and carried off 159 persons; the rate (1·91 per 1,000) is the highest in the district. The death-rate from fevers was 10·90 per 1,000.

Amongst the urban circles the highest death-rate from all causes (22·88 per 1,000) took place in Gadag-Betgeri town. No death from cholera was reported, and there were only 9 deaths from small-pox, whilst the death-rate from fever (8·12) is very low. The high death-rate (5·41) from bowel complaints in this town and also in Hubli (6·16) point unmistakeably to an impure water-supply.

The lowest death-rate (15·63 per 1,000) recorded was in Dhárwár town and is also the lowest in the district. There were no deaths from cholera in the town. Eighteen deaths from small-pox were recorded, whilst the death-rate (7·32 per 1,000) for fevers is the lowest recorded in the district; but the registration of deaths is evidently very imperfectly carried out, and I have no doubt it was much higher than represented.

The mean death-rate in these towns during the last 5 years, compared with the death-rate for 1882 and 1883, was as follows:—

	Mean of 5 years.	1882.	1883.
Dhárwár Town	23·26	24·05	15·63
Hubli „	25·93	26·64	22·27
Gadag-Betgeri „	19·50	25·29	22·88
Ránebennur „	19·33	20·98	21·66

Kaládgi.

44. The district of Kaládgi comprises 8 tálukas and 1 town. It contains 1,141 towns and villages and covers an area of 5,757 square miles. The population of the district is

638,493 and the number of deaths in 1883 was 13,699. The death-rate (21·46 per 1,000 of population) from all causes is higher than in 1882 when 19·10 per 1,000 died. The decennial mean was 29·10 per 1,000.

The maximum monthly mortality (1,727) took place in this district in August and the minimum (750) in February.

Cholera commenced in April, attained its greatest intensity in August, and continued in the district till the end of the year; 1,008 deaths were attributed to it, the millesimal rate being 1·58.

Small-pox was prevalent in the district in March and continued till the close of the year. The number of deaths recorded from this disease was 645, whilst in 1882 there were only 7. The death-rate from small-pox is 1·02 per 1,000 against 0·01 in 1882 and a decennial mean of 0·23. The death-rate from fevers (13·03) was below the mean (17·22).

The following statement shows these deaths arranged by number, cause and ratio per 1,000 in each táluka and town in the district, and compares the district rate with that of 1882 and the mean of the previous 10 years :—

District.	Registration Circles.	Population.	Number of Towns and Villages.	Deaths.													
				Cholera.		Small-pox.		Fevers.		Bowel Complaints.		Injuries.		Other Causes.		All Causes.	
				Number.	Ratio per 1,000.	Number.	Ratio per 1,000.	Number.	Ratio per 1,000.	Number.	Ratio per 1,000.	Number.	Ratio per 1,000.	Number.	Ratio per 1,000.	Number.	Ratio per 1,000.
Kaládgi	Indi ... ...

The high death-rate (5·54) from bowel complaints in it and in Bágalkot Táluka (3·43) is very noticeable.

The mean death-rate in this town during 5 years, compared with the death-rate for 1882 and 1883, was as follows:—

	Mean of 5 years.	1882.	1883.
Kaládgi Town	30·06	22·20	16·23

Kánára.

45. The district of Kánára is divided into 7 tálukas and 4 pethas forming 11 rural circles and 2 town circles. It contains 1,109 towns and villages and covers an area of 3,911 square miles. The population of the district is 421,840 and the total number of deaths in 1883 was 11,018, the death-rate being 26·11 per 1,000 against 25·61 and a decennial mean of 32·78.

The maximum monthly mortality (1,192) in the district took place in December and the minimum (673) in May.

Only one death from cholera took place in the district in December. Small-pox caused 147 deaths against 51 in 1882; the death-rate was 0·35 against 0·12 per 1,000, the mean of 10 years ending 1882 being 0·37. The death-rate from fevers (15·09) was below the decennial mean 18·67, but sligtly higher than the rate (14·86) in 1882.

The following table shows the deaths arranged by number, cause and ratio per 1,000 in each táluka, petha, and town in the district, and compares the district rate with that of 1882 and the mean of the previous 10 years:—

District.	Registration Circles.	Population.	Number of Villages and Towns.	Deaths. Cholera. Number.	Cholera. Ratio per 1,000.	Small-pox. Number.	Small-pox. Ratio per 1,000.	Fevers. Number.	Fevers. Ratio per 1,000.	Bowel Complaints. Number.	Bowel Complaints. Ratio per 1,000.	Injuries. Number.	Injuries. Ratio per 1,000.	Other Causes. Number.	Other Causes. Ratio per 1,000.	All Causes. Number.	All Causes. Ratio per 1,000.
Kánara.	Kárwár S. C.	33,961	31	...	...	...	...	447	13·16	34	0·71	23	·65	242	7·12	735	21·63
	Kumta ,,	45,128	118	...	...	22	·48	653	11·46	53	1·10	26	·54	442	9·18	1,096	22·81
	Ankola Petha ,,	34,139	86	...	...	4	·12	479	14·03	23	0·67	14	·41	307	8·99	827	24·23
	Honávar ,,	54,139	99	...	...	17	·31	569	10·48	76	1·40	21	·37	493	9·09	1,176	21·66
	Bhatkal Petha ,,	31,439	31	...	...	3	·09	243	7·70	71	2·26	20	·64	228	7·41	565	18·07
	Sirsi ,,	87,400	256	...	...	47	·73	1,503	16·96	61	1·46	27	·45	697	10·21	1,835	29·71
	Siddápur ,,	35,658	95	...	...	23	·64	506	14·25	69	1·94	18	·50	254	7·12	870	24·45
	Yellápur ,,	28,629	78	...	...	...	...	434	15·20	29	1·04	6	·23	167	6·75	635	24·03
	Mungod Petha ,,	17,695	75	...	...	...	...	406	23·16	74	4·18	3	·17	130	7·05	700	39·56
	Haliyal ,,	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...
	Supa Petha ,,	43,154	215	...	...	·05	1,352	32·11	366	4·35	17	·27	391	6·40	2,078	33·16
	Kárwár T. C.	13,761	1	...	...	2	·15	137	9·96	14	1·02	2	·15	115	8·35	271	19·69
	Kumta ,,	10,659	1	1	·09	28	2·63	95	8·94	9	·84	1	·09	171	11·39	305	23·99
	1883 ..	421,840	1,109	1	..	147	·35	6,365	15·09	799	1·89	196	·46	3,311	8·22	11,018	26·11
	1882 ..	..	..	51	·12	6,269	14·86	751	1·78	299	·07	3,402	8·28	10,801	25·61
	Mean of 10 years, 1873—82 ..	386	·90	148	·37	7,534	18·67	1,168	2·90	229	·57	3,750	9·23	13,215	32·78

N.B.—As the population of Supa Petha is included in Haliyál Táluka, the deaths were included in it.

Among the rural circles the highest death-rate from all causes (39·86 per 1,000) took place in Mungod Petha, in which although no deaths from cholera or small-pox were recorded, the death-rate from fevers (23·16) is the highest in the district, and the rate for bowel complaints is the high one of 4·18.

The next highest death-rate (34·09 per 1,000) occurred in Yellápur Táluka. No deaths from cholera or small-pox were reported in this táluka, but the death-rate from fevers (23·30) is the second highest in the district.

The lowest death-rate (18·07 per 1,000) was in Bhatkal Petha, in which only 2 deaths from small-pox were reported. The death-rate from fevers (7·70) is the lowest in the district.

The next lowest death-rate (19·69 per 1,000) is found in Kárwár town, in which only 2 deaths from small-pox were recorded, whilst the fever rate was 9·95 per 1,000.

In Kumta town the death-rate was 23·99 per 1,000. There was 1 death from cholera and 28 from small-pox. The rate from fevers was 8·94 per 1,000.

The mean death-rate in these towns during the last 5 years, compared with the death-rate for 1882 and 1883, was as follows :—

	Mean of 5 years.	1882.	1883.
Kárwár Town	22·60	20·20	19·69
Kumta „	17·96	23·71	23·99

Ratnágiri.

46. The district of Ratnágiri is divided into 8 tálukas and 2 towns. It contains 1,297 towns and villages and covers an area of 3,922 square miles. The population of the district is 997,090 and the number of deaths in 1883 was 16,831, the death-rate per 1,000 being 16·88 against 14·68 and a decennial mean of 17·04. This low death-rate leads to the suspicion that the registration of deaths like that of births is very defective in this district.

The maximum monthly mortality (1,698) in the district took place in April and the minimum (1,155) in October.

Cholera commenced in May, attained its maximum intensity in August, and disappeared from the district in November after causing 91 deaths. Small-pox prevailed throughout the year to a great extent, as it caused 991 deaths against 8 in 1882; the death-rate was 0·99 per 1,000 against 0·01 in 1882, the decennial mean being 0·37 per 1,000. The death-rate from fevers (8·42 per 1,000) was a little below the mean of 10 years (9·47) and slightly above the rate in 1882 (8·38).

The following statement shows the deaths arranged by number, cause and ratio per 1,000 in each táluka and town in the district, and compares the district rate with that of 1882 and the mean of the previous 10 years :—

District.	Registration Circles.		Population.	Number of Villages and Towns.	Deaths. Cholera. Number.	Cholera. Ratio per 1,000.	Small-pox. Number.	Small-pox. Ratio per 1,000.	Fevers. Number.	Fevers. Ratio per 1,000.	Bowel Complaints. Number.	Bowel Complaints. Ratio per 1,000.	Injuries. Number.	Injuries. Ratio per 1,000.	Other Causes. Number.	Other Causes. Ratio per 1,000.	All Causes. Number.	All Causes. Ratio per 1,000.
Ratnágiri.	Málvan	R. C. ..	109,953	67	..	..	63	·57	444	4·04	86	·78	44	·40	1,153	10·49	1,790	16·28
	Devgad	„ ..	117,899	121	..	..	121	1·03	875	7·42	23	·19	68	·56	973	8·25	2,069	17·47
	Rájápur	„ ..	127,998	174	..	..	112	·88	954	7·45	197	1·54	88	·69	695	5·44	2,047	16·00
	Ratnágiri	„ ..	113,611	149	..	..	112	·98	704	6·19	61	·54	30	·27	617	5·43	1,524	13·41
	Sangameshvar	„ ..	104,040	179	14	·13	54	·52	945	9·03	83	·80	39	·27	402	4·70	1,627	15·55
	Chiplun	„ ..	168,922	212	5	·03	262	1·55	1,707	10·11	108	·64	47	·28	1,063	6·29	3,192	18·90
	Khed	„ ..	91,492	146	..	..	44	·48	1,049	11·47	22	·25	43	·47	400	4·27	1,508	17·14
	Dápoli	„ ..	141,012	247	72	0·51	136	·97	1,557	11·04	47	·33	34	·24	625	4·43	2,471	17·02
	Vengurla	T. C. ..	8,947	1	..	..	38	4·25	51	5·70	16	1·79	5	·56	139	14·53	249	26·82
	Ratnágiri	„ ..	12,616	1	..	..	49	3·89	112	8·88	17	1·34	2	·15	132	10·47	312	24·73
		1883 ..	997,090	1,297	91	·09	991	·99	8,398	8·42	670	·67	400	·40	6,281	6·30	16,831	16·88
		1882 ..			99	·10	8	·01	8,333	8·28	853	·85	391	·39	4,934	4·96	14,637	14·68
		Mean of 10 years, 1873—82 ..			541	·53	376	·37	9,612	9·47	1,507	1·49	410	·40	4,847	4·77	17,292	17·04

Amongst the rural circles the highest death-rate from all causes (18·90 per 1,000) took place in Chiplun Táluka, in which there were 5 deaths or 0·03 per 1,000 from cholera and 262 or 1·55 from small-pox reported. The death-rate from fevers was 10·11 per 1,000 of population.

The lowest death-rate (13·41 per 1,000) occurred in Ratnágiri Táluka, in which no deaths from cholera were recorded throughout the year. Small-pox caused

112 deaths or 0·98 per 1,000, whilst the death-rate from fevers was 6·19 per 1,000.

Among the urban population the highest death-rate from all causes (26·83 per 1,000) was found in Vengurla town, and is the highest in the district. There were no deaths from cholera, but the death-rate from small-pox (4·25 per 1,000) in this town is the highest in the district. The death-rate from fevers is the incredibly low one of 5·70. This even is higher than in Málvan Rural Circle, where a rate of only 4·04 per 1,000 is returned.

In Rátnágiri town no deaths from cholera were recorded, the rate of small-pox being 3·89, whilst that of fever was 8·88 per 1,000.

The mean death-rate in these towns during the last 5 years, compared with the death-rate for 1882 and 1883, was as follows:—

	Mean of 5 years.	1882.	1883.
Vengurla Town	25·37	25·59	26·83
Ratnágiri „	18·94	22·04	24·73

Kolába.

47. The district of Kolába is divided into 5 tálukas and 1 petha forming 6 rural circles and 2 town circles. It contains 975 towns and villages and covers an area of 1,496 square miles. The population of the district is 381,649 and the number of deaths from all causes in 1883 was 8,330, the death-rate being 21·83 per 1,000 of population against 19·07 in 1882 and a decennial mean of 16·48.

The maximum monthly mortality (844) in the district took place in March and the minimum (439) in October.

Cholera commenced in May, attained its maximum intensity in August, and continued in the district till the end of the year; 400 deaths or 1·05 per 1,000 of population were ascribed to it. Small-pox prevailed throughout the year to a great extent and caused 343 deaths against 90 in 1882, the death-rate being 0·90 against 0·24 per 1,000. The death-rate from fevers (14·81 per 1,000) was above the decennial mean (11·15) and slightly higher than the rate in 1882 (14·30).

The following table shows the deaths arranged by number, cause and ratio per 1,000 in each táluka and town in the district, and compares the district rate with that of 1882 and the mean of the previous 10 years:—

District.	Registration Circles.	Population.	Number of Villages and Towns.	Deaths. Cholera. Number.	Cholera. Ratio per 1,000.	Small-pox. Number.	Small-pox. Ratio per 1,000.	Fevers. Number.	Fevers. Ratio per 1,000.	Bowel Complaints. Number.	Bowel Complaints. Ratio per 1,000.	Injuries. Number.	Injuries. Ratio per 1,000.	Other Causes. Number.	Other Causes. Ratio per 1,000.	All Causes. Number.	All Causes. Ratio per 1,000.
Kolába.	Alibág R. C. ..	69,702	171	82	1·18	45	·64	1,337	19·02	21	·30	28	·40	590	8·46	2,023	29·00
	Pen „ ..	70,200	199	100	1·42	32	·46	1,338	19·06	14	·20	29	·41	165	2·35	1,678	23·90
	Petha Nágothna „ ..																
	Roha „ ..	44,833	132	24	·54	36	·80	775	17·29	7	·15	17	·38	240	5·35	1,099	24·51
	Mángaon „ ..	81,085	223	43	·53	173	2·13	1,381	15·55	11	·14	33	·41	396	4·88	1,017	23·64
	Mahád „ ..	107,587	245	79	·87	13	·13	865	8·43	14	·14	47	·46	179	1·74	1,297	11·77
	Alibág T. C. ..	6,370	1	37	5·80	35	5·49	68	12·06	..	..	1	·16	101	15·84	242	37·95
	Mahád „ ..	6,804	1	23	3·67	9	1·32	87	12·79	3	·44	1	·14	39	5·74	164	24·10
	1883 ..	381,649	973	400	1·05	343	·90	5,651	14·81	70	·18	156	·41	1,710	4·48	8,330	21·83
	1882 ..			149	·39	90	·24	5,458	14·30	107	·28	143	·38	1,330	3·48	7,277	19·07
	Mean of 10 years, 1873—82 ..			448	1·26	143	·40	3,979	11·15	172	·48	131	·37	1,005	2·82	5,878	16·48

N. B.—The deaths in Nágothna Petha are included in Pen Táluka, as in the Census Report the population living in each is not shown separately.

Amongst the rural registration circles the highest death-rate from all causes (29·00 per 1,000) took place in Alíbág Táluka, in which there were 82 deaths from cholera or 1·18 per 1,000 and 45 or 0·64 per 1,000 from small-pox, whilst the death-rate from fevers was 18·02 per 1,000.

The lowest death-rate (11·77 per 1,000) occurred in Mahád Táluka. The deaths from cholera were 89 or 0·87 per 1,000 and from small-pox 13 or 0·13 per 1,000 of population. The death-rate from fevers (8·43 per 1,000) is the lowest in the district.

Amongst the urban population the highest death-rate, 37·95, which is also the highest in the district, occurred in Alíbág town. Thirty-seven deaths or 5·80 per 1,000 from cholera and 35 deaths or 5·49 per 1,000 from small-pox were recorded. The death-rate from fevers was 10·66. As a proof of how defective registration is I must point out that not a single death has been returned under bowel complaints.

In Mahád town the death-rate from all causes was 24·10. Cholera caused 25 and small-pox 9 deaths. The fever rate was 12·79 per 1,000.

The mean death-rate in these towns during the last 5 years, compared with the death-rate for 1882 and 1883, was as follows:—

	Mean of 5 years.	1882.	1883.
Alíbág Town	24·30	21·80	37·95
Mahád „	22·48	19·25	24·10

Bombay.

48. The city of Bombay covers an area of 22 square miles and the total population is 773,196. The number of deaths in 1883 was 23,259, the death-rate being 30·08 against 26·16 per 1,000 in 1882 and a decennial mean of 32·07.

The maximum monthly mortality (2,464) took place in August and the minimum (1,482) in November.

Cholera attained its maximum intensity in August and continued till the end of the year; 1,014 deaths or 1·31 per 1,000 were ascribed to it; but small-pox was even yet more fatal, as it caused 1,431 deaths against 91 in 1882, the rate being 1·85 against 0·12 in 1882. The death-rate from fevers (7·47 per 1,000) was below the mean of 10 years (10·86 per 1,000).

The following table shows the deaths in number and ratio per 1,000 and compares the death-rate with that of 1882 and the mean of the previous 10 years:—

Years.	Population.	Cholera.		Small-pox.		Fevers.		Bowel Complaints.		Injuries.		Other Causes.		All Causes.	
		Number.	Ratio per 1,000.	Number.	Ratio per 1,000.	Number.	Ratio per 1,000.	Number.	Ratio per 1,000.	Number.	Ratio per 1,000.	Number.	Ratio per 1,000.	Number.	Ratio per 1,000.
1883..	773,196	1,014	1·31	1,431	1·85	5,775	7·47	1,769	2·29	339	0·44	12,331	16·72	23,259	30·08
1882..		190	·25	91	·12	5,431	7·04	1,586	2·05	330	0·43	12,602	16·30	20,279	26·16
Mean of 10 years, 1879—82		607	·91	648	·97	7,251	10·86	2,167	3·25	309	0·46	10,481	15·64	21,498	32·07

Thána.

49. The district of Thána is divided into 11 tálukas and 3 towns. It contains 2,101 towns and villages and covers an area of 4,243 square miles. The population of the district is 908,548 and the total number of deaths in 1883 was 24,364, the death-rate being 26·82 per 1,000 against 22·09 in 1882 and a decennial mean of 22·01.

The maximum monthly mortality (2,364) in the district took place in January and the minimum (1,217) in October.

Cholera commenced in April, attained its maximum intensity in May and continued in the district till the close of the year; 2,298 deaths or 2·53 per 1,000 of population were ascribed to it. Small-pox prevailed in the district throughout the year to a great extent and caused 1,646 deaths against 328 in 1882, the rate being 1·82 against 0·36 per 1,000 in 1882 and a decennial mean of 0·48. The deaths from fevers amounted to 17,485 or 19·24 per 1,000 against 16,308 or 17·95 in 1882. The mean of 10 years was 16·79.

I have but little faith in the correctness of these figures as there is plenty of evidence that the registration of deaths, as well as of births, is extremely defective.

The following statement shows the deaths arranged by number, cause and ratio per 1,000 in each táluka and town in the district, and compares the district rate with that of 1882 and the mean of the previous 10 years:—

District.	Registration Circles.	Population.	Number of Villages and Towns.	Deaths													
				Cholera.		Small-pox.		Fevers.		Bowel Complaints.		Injuries.		Other Causes.		All Causes.	
				Number.	Ratio per 1,000.	Number.	Ratio per 1,000.	Number.	Ratio per 1,000.	Number.	Ratio per 1,000.	Number.	Ratio per 1,000.	Number.	Ratio per 1,000.	Number.	Ratio per 1,000.
Thána	Dáhánu R. C.	109,922	239	32	·11	39	·36	1,626	14·97	24	·01	73	·67	137	1·25	1,931	17·57
	Máhim ,,	77,960	166	4	·0·05	125	1·61	1,109	14·23	13	·17	39	·50	109	1·39	1,267	17·00
	Vada ,,	36,490	123	68	1·89	145	3·97	651	17·84	16	·43	23	·63	54	1·48	1,171	12·09
	Bhátsapur ,,	107,726	273	304	2·29	157	1·18	2,646	24·71	19	·18	45	·37	213	1·98	3,383	31·72
	Murbád ,,	69,554	171	21	·03	149	2·29	1,504	21·62	6	·12	27	·42	109	1·71	1,816	29·79
	Kalyán ,,	85,076	222	84	·97	262	4·03	1,471	22·29	26	·30	13	·14	108	2·44	1,966	30·05
	Bhiwndi ,,	71,302	194	270	3·58	166	2·20	1,725	22·86	23	·34	29	·39	171	2·25	2,384	31·62
	Panvel ,,	68,967	92	78	1·13	126	1·81	1,079	15·45	14	·20	20	·45	219	3·19	1,536	22·36
	Sáisette ,,	51,193	112	200	4·27	204	2·18	1,541	16·13	111	1·19	46	·49	261	4·16	2,363	25·42
	Panvel ,,	90,105	216	460	4·44	90	1·04	1,952	22·60	3	·02	27	·29	278	3·05	2,810	30·44
	Karjat- ,,	61,503	205	371	4·81	108	1·72	1,668	26·70	16	·25	21	·35	172	2·73	2,356	36·13
	Thána T. C.	14,846	1	8	·43	28	1·94	178	12·21	...	...	6	·35	69	4·77	289	19·78
	Kalyán ,,	12,810	1	100	8·22	8	·71	97	8·74	1	·07	6	·47	29	2·08	241	19·13
	Panvel ,,	10,161	1	314	30·34	43	4·15	60	6·28	3	·26	4	·39	36	3·47	460	45·11
	1883 ...	909,849	2,101	2,298	2·53	1,646	1·82	17,485	19·24	275	·32	330	·43	2,352	2·68	24,386	26·82
	1882 ...			774	·85	328	·36	16,308	17·95	276	·30	426	·46	1,947	2·14	20,071	22·09
	Mean of 10 years, 1873—82 ...	1,395	1·62	416	·48	14,456	16·79	345	·40	428	·50	1,804	2·21	15,318	22·03		

Amongst the rural registration circles the highest death-rate from all causes (31·62 per 1,000) took place in Bhiwndi Táluka. Cholera in it carried off 270 persons or 3·58 per 1,000. Small-pox caused 166 deaths, the death-rate being 2·20 per 1,000, whilst the death-rate from fevers was 22·86 per 1,000.

The lowest death-rate (17·57) is found in Dáhánu Táluka, in which 12 deaths from cholera were recorded. There were 39 deaths or 0·36 per 1,000 from small-pox, whilst the death-rate from fevers was 14·87.

The highest death-rate from all causes (45·11 per 1,000) in the district was found in Panvel town, in which 314 deaths from cholera were recorded. The death-rate (30·34) in it is the highest in the district. There were 43 deaths or 4·15 per 1,000 from small-pox. The death-rate from fevers (6·28) is the lowest in the district.

In Thána and Kalyán the reported death-rates were 19·78 and 19·13 per 1,000 respectively. There were 6 deaths from cholera in the former and 106 in the latter, the respective rates being 0·41 and 8·22 per 1,000. The death-rate from small-pox in Thána was 1·94 and at Kalyán 0·61 per 1,000, whilst that of fevers was respectively 12·31 and 6·74, which is manifestly incorrect.

The mean death-rate in these towns during the last 5 years, compared with the death-rate for 1882 and 1883, were as follows:—

	Mean of 5 years.	1882.	1883.
Thána Town... ...	20·75	16·74	19·78
Kalyán ,, ...	20·21	13·71	19·13
Panvel ,, ...	19·22	17·78	45·11

Surat.

50. The district of Surat is divided into 8 rural and 2 town circles. It contains 782 towns and villages and covers an area of 1,662 square miles. The population of the district is 614,198 and the total number of deaths in 1883 was 19,316, the death-rate being 31·44 per 1,000 against 22·81 in 1882 and a decennial mean of 27·22.

The maximun monthly mortality (2,470) in the district took place in November and the minimum (1,163) in June.

Cholera commenced in June, attained its maximum intensity in October and continued in the district till the close of the year; 591 deaths or 0·96 against 9 or 0·01 per 1,000 in 1882 were ascribed to it. Small-pox prevailed in the district throughout the year to a great extent and caused 1,342 deaths against 89 in 1882, the death-rate being 2·18 per 1,000 against 0·15 in 1882. The death-rate from fevers (22·27 per 1,000 of population) was above the decennial mean 19·24, whilst the death-rate from bowel complaints was as usual high (2·98 per 1,000).

The following statement shows the deaths arranged by number, cause and ratio per 1,000 in each táluka and town in the district, and compares the district rate with that of 1882 and the mean of the previous 10 years:—

District.	Registration Circles.	Population.	Number of Villages and Towns.	Deaths.													
				Cholera.		Small-pox.		Fevers.		Bowel Complaints.		Injuries.		Other Causes.		All Causes.	
				Number.	Ratio per 1,000.	Number.	Ratio per 1,000.	Number.	Ratio per 1,000.	Number.	Ratio per 1,000.	Number.	Ratio per 1,000.	Number.	Ratio per 1,000.	Number.	Ratio per 1,000.
Surat.	Olpád R. C.	62,049	130	9	0·14	201	3·24	1,533	24·69	279	4·50	28	0·45	171	2·76	2,221	35·78
	Mándvi ,,	50,810	141	1	0·01	70	0·59	1,422	19·74	35	0·69	21	0·41	4	0·08	1,553	30·55
	Chorási ,,	44,708	66	1	0·02	115	2·57	875	19·58	226	5·05	24	0·53	234	5·23	1,475	32·99
	Bárdoli ,,	76,106	104	104	1·36	57	0·75	2,048	26·90	165	2·16	23	0·30	23	0·30	2,420	31·80
	Jalálpor ,,	74,076	91	96	1·29	73	0·99	1,937	25·63	404	5·46	29	0·39	18	0·24	2,557	33·90
	Chikhli ,,	66,147	62	83	1·26	10	0·15	1,402	21·21	146	2·21	23	0·35	79	1·19	1,863	28·17
	Bulsár ,,	67,478	94	71	1·05	1	0·01	1,605	24·01	255	3·78	27	0·40	44	0·65	1,961	29·06
	Párdi ,,	53,961	93	96	1·51	44	0·80	1,846	18·81	286	2·99	27	0·28	45	0·81	1,444	26·90
	Surat T.C. ,,	160,844	1	83	0·75	802	7·30	1,846	16·81	28	0·25	37	0·34	246	2·01	3,741	34·06
	Bulsár ,,	13,229	1	52	3·93	9	0·68	77	5·82	14	1·06	5	0·38	63	4·76	220	16·63
	1883	614,198	792	591	0·96	1,342	2·18	13,679	22·27	1,833	2·98	258	0·42	1,013	2·03	19,316	31·44
	1882			9	0·01	89	0·15	10,866	17·40	1,791	2·19	243	0·40	1,699	2·75	14,007	22·81
	Mean of 19 years, 1873–82			809	1·25	593	0·93	11,767	19·24	1,461	2·30	260	0·42	2,002	3·23	16,562	27·22

Among the rural circles the highest death-rate from all causes (35·78 per 1,000 of population) occurred in Olpád Táluka, in which there were only 9 deaths from cholera or 0·14 per 1,000, but small-pox caused 201 deaths, the death-rate being the very high one of 3·24, whilst the death-rate from fevers was 24·69 per 1,000, and that from bowel complaints was the high one of 4·50 per 1,000.

The next highest death-rate (33·99 per 1,000) took place in Jalálpor Táluka, in which cholera carried off 96 persons or 1·29 per 1,000, the death-rate from small-pox being 0·99 and that of fevers 25·63 per 1,000, and from bowel complaints the very high one of 5·46 per 1,000.

The lowest death-rate (25·90 per 1,000) was in Párdi Táluka, in which 90 deaths from cholera were recorded. Small-pox caused 44 deaths, the death-rate being 0·80 per 1,000. The death-rate from fevers was 18·81 per 1,000 of population.

Amongst the urban circles the highest death-rate from all causes (34·06 per 1,000) occurred in Surat town, in which cholera caused 82 deaths or 0·75 per 1,000. Small-pox prevailed to a great extent in the town and caused 802 deaths; the death-rate (7·30 per 1,000) is the highest in the district. From fevers there were 1,846 deaths or 16·81 per 1,000 of population, whilst the death-rate (8·61 per 1,000) from other causes is the highest in the district.

In Bulsár town there was a death-rate of 16·63 per 1,000. Cholera carried off 52 persons out of a population of 13,229; the death-rate (3·93 per 1,000) is

the highest in the district. Small-pox caused 9 deaths or 0·68 per 1,000, whilst the death-rate from fevers (5·82 per 1,000) is the lowest in the district.

The mean death-rate in these towns during the last 5 years, compared with the death-rate for 1882 and 1883, was as follows:—

	Mean of 5 years.	1882.	1883.
Surat Town	26·44	24·42	34·06
Bulsár „	13·09	12·17	16·63

Broach.

51. The district of Broach is divided into 5 talukas and 1 petha forming 6 rural registration circles and 2 town circles. It contains 405 towns and villages and covers an area of 1,453 square miles. The population of the district is 326,930 and the total number of deaths in 1883 from all causes was 9,114, the death-rate being 27·88 per 1,000 against 20·35 in 1882 and a decennial mean of 28·58.

The maximum monthly mortality (1,163) took place in the district in November and the minimum (535) in June.

Cholera commenced in August, attained its maximum intensity in September, and continued in the district till the end of the year. Eighty-eight deaths or 0·27 per 1,000 of population were ascribed to it. One hundred and forty deaths were recorded from small-pox during the year against none in 1882. The deaths from fevers amounted to 7,560 or 23·12 per 1,000 against 17·19 in 1882 and a decennial mean of 23·46. The death-rate from bowel complaints (1·87 per 1,000) is slightly above that of 1882 (1·52 per 1,000) and the decennial mean of 1·51.

The following statement shows the deaths arranged by number, cause and ratio per 1,000 in each táluka and town in the district, and compares the district rate with that of 1882 and the mean of the previous 10 years:—

District.	Registration Circles.	Population.	Number of Villages and Towns.	Deaths. Cholera. Number.	Cholera. Ratio per 1,000.	Small-pox. Number.	Small-pox. Ratio per 1,000.	Fevers. Number.	Fevers. Ratio per 1,000.	Bowel Complaints. Number.	Bowel Complaints. Ratio per 1,000.	Injuries. Number.	Injuries. Ratio per 1,000.	Other Causes. Number.	Other Causes. Ratio per 1,000.	All Causes. Number.	All Causes. Ratio per 1,000.
Broach.	Broach R. C. ..	73,280	104	6	0·08	12	0·16	1,792	24·45	124	1·69	19	0·26	62	0·85	2,015	27·49
	Vágra „ ..	33,902	69	..	..	..	..	824	24·31	28	0·83	5	0·15	7	0·21	864	25·50
	A'mod „ ..	39,041	48	..	..	9	0·23	904	22·80	47	1·19	18	0·45	169	4·26	1,147	28·93
	Jambusar „ ..	66,293	82	..	..	..	..	1,660	25·46	98	1·48	34	0·51	..	..	1,690	27·45
	Anklesvar „ .. / Hánsot Petha R. C. ..	65,054	100	8	0·12	18	0·28	1,500	24·44	38	0·58	29	0·45	130	2·00	1,513	27·87
	Broach T. C. ..	37,281	1	72	1·06	101	2·71	611	16·38	34	0·91	11	0·29	218	5·85	1,048	28·11
	Jambusar „ ..	11,479	1	1	0·09	..	..	151	13·18	241	20·99	14	1·22	..	..	407	35·46
	1883 ..	326,930	405	88	0·27	140	0·43	7,560	23·12	610	1·87	130	0·40	586	1·79	9,114	27·88
	1882 ..			1	..	..	..	5,819	17·19	498	1·52	130	0·40	400	1·24	6,654	20·35
	Mean of 10 years, 1873—82 ..			307	0·89	147	0·43	8,111	23·46	523	1·51	132	0·28	656	1·90	9,876	28·58

N.B.—The deaths in Hánsot Petha are included in Anklesvar Táluka as in the Census Report the population of each is not shown separately.

Amongst the rural circles the highest death-rate from all causes (28·93 per 1,000 of population) took place in Ámod Táluka, in which no deaths from cholera were recorded during the year. Small-pox caused 9 deaths or 0·23 per 1,000, whilst the death-rate from fevers was 22·80 per 1,000. The highest death-rate from fevers (25·46 per 1,000) in the district is returned from Jambusur Táluka, while no deaths from other causes were reported in it.

The lowest death-rate (25·50 per 1,000) occurred in Vágra Táluka, in which no deaths either from cholera or small-pox were registered during the year. Fever caused 824 deaths or 24·31 per 1,000 of population.

Amongst the urban circles the death-rate from all causes (35·46 per 1,000 of population) in Jambusur town is the highest in the district. There was only

one death from cholera and none from small-pox, whilst the death-rate from fevers (13·15 per 1,000) is the lowest in the district. The remarkably high death-rate (20·99 per 1,000) from bowel complaints is returned in this town, whilst no deaths from other causes were registered during the year. The very high death-rate from bowel complaints in this town is probably due to an impure water-supply. The death-rate from injuries (1·22 per 1,000) in this town is the highest in the district.

In Broach town the death-rate from all causes was 28·11 per 1,000. Cholera carried off 73 persons; the death-rate (1·96 per 1,000) is the highest in the district. Small-pox caused 101 deaths; the death-rate (2·71 per 1,000) is like that of cholera highest in the district. The deaths from fevers were 611 or 16·39 per 1,000 of population, whilst the death-rate from other causes (5·85) is the highest in the district.

The mean death-rate in these towns during the last 5 years, compared with the death-rate for 1882 and 1883, was as follows :—

	Mean of 5 years.	1882.	1883.
Broach Town	23·56	13·38	28·11
Jambusar Town	30·77	27·88	35·46

Kaira.

52. The district of Kaira is divided into 7 rural and 4 town circles. It contains 581 towns and villages and covers an area of 1,609 square miles. The population of the district is 804,800 and the total number of deaths from all causes in 1883 was 20,209, the death-rate being 25·11 per 1,000 of population against 22·33 in 1882 and a decennial mean of 27·71.

The maximum monthly mortality (2,259) in the district took place in August and the minimum (1,478) in May.

Cholera commenced in July, attained its maximum intensity in August and disappeared from the district in October after causing 282 deaths or 0·35 per 1,000 of population during the year. Small-pox prevailed from April to July and caused 13 deaths against 5 in 1882, the death-rate being 0·02 per 1,000 against 0·01 in 1882 and a deccennial mean of 0·41. The death-rate from fevers (20·09 per 1,000) was below the decennial mean 22·27, but higher than the rate in 1882 (18·15).

The following table shows the deaths arranged by number, cause and ratio per 1,000 in each táluka and town in the district, and compares the district rate with that of 1882 and the mean of the previous 10 years :—

District.	Registration Circles.	Population.	Number of Villages and Towns.	Deaths.													
				Cholera.		Small-pox.		Fevers.		Bowel Complaints.		Injuries.		Other Causes.		All Causes.	
				Number.	Ratio per 1,000.	Number.	Ratio per 1,000.	Number.	Ratio per 1,000.	Number.	Ratio per 1,000.	Number.	Ratio per 1,000.	Number.	Ratio per 1,000.	Number.	Ratio per 1,000.
Kaira.	Mahmudabad B. C. ..	76,286	99	1	0·01	..	..	1,702	22·30	256	3·35	37	0·47	162	2·14	2,158	28·28
	Nadiád ..	220,562	97	39	0·39	..	..	3,045	19·80	466	3·40	53	0·33	187	0·80	3,800	23·89
	Borsad ..	131,002	99	7	0·05	..	..	2,308	17·61	457	3·49	58	0·44	227	1·69	3,057	23·28
	A'nand ..	104,118	74	23	0·21	2	0·02	2,778	17·64	457	2·94	58	0·54	207	1·99	3,573	23·79
	Thásra ..	84,866	67	21	0·27	..	..	1,831	21·57	183	1·97	20	0·23	149	1·76	2,174	25·62
	Kapadvanj ..	78,562	93	..	..	..	..	1,227	15·62	166	2·12	22	0·28	104	1·32	1,519	19·34
	Mátar ..	78,276	83	21	0·27	..	..	1,961	25·05	186	2·38	30	0·38	106	1·35	2,304	29·44
	Kaira T. C. ..	12,580	1	61	4·85	4	0·32	304	24·16	59	4·67	3	0·24	8	0·63	439	34·49
	Nadiád ..	20,594	1	69	3·35	..	..	544	26·42	3	0·15	12	0·58	18	0·87	646	31·37
	Borsad ..	12,128	1	1	0·08	..	..	226	18·64	3	0·25	6	0·49	..	..	236	19·46
	Kapadvanj ..	14,442	1	..	..	6	0·41	330	22·85	15	1·04	5	0·35	76	4·65	432	29·29
	1883 ..	804,800	581	282	0·35	13	0·02	16,176	20·09	2,159	2·68	246	0·43	1,239	1·54	20,209	25·11
	1882 ..			269	0·33	5	0·01	14,614	18·15	1,768	2·20	301	0·37	1,014	1·26	17,970	22·33
	Mean of 10 years, 1873—82 ..			570	0·72	333	0·41	17,928	22·27	1,078	2·01	321	0·41	1,079	1·43	21,808	27·71

Amongst the rural circles the highest death-rate from all causes (29·84 per 1,000) occurred in Mátar Táluka, in which there were 21 or 0·27 per 1,000 deaths from cholera. No deaths from small-pox were registered, whilst the death-rate from fevers was 25·31 per 1,000.

The next highest death-rate (28·76 per 1,000) took place in Mehmadabad Táluka. Cholera caused only one death or 0·01 per 1,000. There were no deaths from small-pox. Fever caused 1,762 deaths, the death-rate being 23·09 per 1,000.

The lowest death-rate from all causes (20·69 per 1,000) occurred in Kapadvanj Taluka, in which no deaths either from cholera or small-pox were reported during the year, whilst the death-rate from fevers (16·89 per 1,000) is the lowest in the district.

Amongst the urban circles the death-rate from all causes (34·49 per 1,000) in Kaira town is the highest in the district, in which cholera carried off 61 persons in a population of 12,640; the rate (4·82 per 1,000) is the highest in the district. Small-pox caused 4 deaths or 0·32 per 1,000, whilst the total deaths from fevers was 301 or 23·81 per 1,000. The high death-rate in this town from bowel complaints (4·67 per 1,000) is the highest in the district.

The lowest death-rate 19·30 per 1,000 is found in Borsad town, in which only 1 death was registered from cholera. Small-pox caused no death, whilst the death-rate from fevers was 18·49 per 1,000.

The mean death-rate in each town during the last 5 years, compared with the death-rate for 1882 and 1883, was as follows:—

			Mean of 5 years.	1882.	1883.
Kaira	Town	...	27·03	31·72	34·49
Nadiád	"	...	30·31	22·79	33·92
Borsad	"	...	23·81	16·19	19·30
Kapadvanj	"	...	26·89	37·94	29·22

53. The district of Panch Maháls is divided into 5 rural and 2 town circles. It contains 675 towns and villages and covers an area of 1,613 square miles. The population of the district is 255,479 and the total number of deaths from all causes amounted to 4,300, the death-rate per 1,000 being 16·83 against 15·98 in 1882 and a decennial mean of 22·16.

Panch Maháls.

The maximum monthly mortality (475) in the district took place in November and the minimum (221) in July.

Cholera commenced in September and disappeared from the district in October after causing 28 deaths or 0·11 per 1,000 of population. The deaths from small-pox during the year were 31 against 4 in 1882. The death-rate was 0·12 per 1,000 against 0·02 in 1882 and a decennial mean of 0·18. The death-rate from fevers (15·56) was below the mean of previous 10 years (16·58) and a little higher than the rate in 1882 (14·94).

The following statement shows the deaths arranged by number, cause and ratio per 1,000 in each táluka and town in the district, and compares the district rate with that of 1882 and the mean of the previous 10 years:—

District.	Registration Circles.	Population.	Number of Villages and Towns.	Deaths. Cholera. Number.	Cholera. Ratio per 1,000.	Small-pox. Number.	Small-pox. Ratio per 1,000.	Fevers. Number.	Fevers. Ratio per 1,000.	Bowel Complaints. Number.	Bowel Complaints. Ratio per 1,000.	Injuries. Number.	Injuries. Ratio per 1,000.	Other Causes. Number.	Other Causes. Ratio per 1,000.	All Causes. Number.	All Causes. Ratio per 1,000.
Panch Maháls.	Godhra R. C.	64,074	232	1	0·02	4	0·06	919	14·14	17	0·26	22	0·34	10	0·15	973	14·97
	Dohad "	47,718	120	4	0·08	..	..	605	12·81	15	0·32	15	0·32	22	0·46	661	13·99
	Kálol "	43,209	99	5	0·11	3	0·07	557	12·80	45	1·04	10	0·27	12	0·28	938	21·67
	Jhálod "	41,926	30	..	..	4	0·09	553	13·48	2	0·05	18	0·46	3	0·07	581	14·15
	Hálol "	33,252	156	..	..	..	..	769	21·32	4	0·12	21	0·63	1	0·03	795	22·10
	Godhra T. C.	15,542	1	..	..	14	1·05	135	10·12	..	..	10	0·75	5	0·37	164	12·29
	Dohad "	12,504	1	18	1·45	6	0·48	196	15·91	11	0·89	5	0·40	12	0·97	248	20·01
	1883 ..	255,479	675	28	0·11	31	0·12	3,974	15·56	94	0·37	106	0·42	63	0·25	4,300	16·89
	1882 ..	..	..	..	..	4	0·02	3,818	14·94	100	0·39	82	0·32	79	0·31	4,083	15·98
	Mean of 10 years, 1872—82 ..			606	2·32	44	0·18	4,040	16·58	318	1·20	116	0·48	316	1·30	5,400	22·16

Amongst the rural circles the death-rate from all causes (22·10) in Hálol Táluka is the highest in the district. There were no deaths either from cholera or small-pox, whilst the total deaths from fever amounted to 709. The death-rate (21·32 per 1,000) is the highest in the district.

The next highest death-rate (21·67 per 1,000) took place in Kálol Táluka, in which 5 deaths from cholera and 3 from small-pox were reported during the year. The death-rate from fevers was 19·80 per 1,000 and that of bowel complaints (1·04 per 1,000 of population) is the highest in the district.

The lowest death-rate (13·99 per 1,000) was found in Dohad Táluka, in which 4 deaths from cholera took place. Small-pox caused no deaths, whilst the death-rate from fevers was 12·81 per 1,000.

Amongst the urban circles the highest death-rate from all causes (20·01) took place in Dohad town, in which cholera carried off 18 persons. The death-rate (1·45 per 1,000) is the highest in the district. Small-pox caused 6 deaths or 0·48 per 1,000, whilst the death-rate from fevers was 15·81.

A death-rate of 12·29 per 1,000 was reported in Godhra town, in which no deaths from cholera were reported. The deaths from small-pox were 14 or 1·05 per 1,000 and is the highest in the district. There were 135 deaths from fevers; the death-rate was 10·12 per 1,000. No deaths from bowel complaints were recorded during the year. The registration in this town is evidently defective.

The mean death-rate in these towns during the last 5 years, compared with the death-rate for 1882 and 1883, was as follows:—

	Mean of 5 years.	*1882.	1883.
Godhra Town	35·04	13·34	12·29
Dohad „	38·55	19·44	20·01

Ahmedabad.

54. The district of Ahmedabad is divided into 7 rural, 1 cantonment and 4 town circles. It contains 862 towns and villages and covers an area of 3,821 square miles. The population of the district is 856,324 and the total number of deaths from all causes amounted to 20,167, the death-rate per 1,000 being 23·55 against 24·20 in 1882 and a decennial mean of 28·53.

The maximum monthly mortality (2,005) in the district took place in February and the minimum (1,308) in July.

Cholera commenced in April and disappeared from the district in May. It reappeared and attained its maximum intensity in August and disappeared in October; 139 deaths against 689 in 1882 were ascribed to it, the death-rate being 0·16 against 0·80 in 1882 and a decennial mean of 0·97. There were 68 deaths against 23 in 1882 from small-pox recorded during the year. The rate was 0·08 against 0·03 and a mean of 10 years 0·30 per 1,000. The death-rate from fevers (18·55 per 1,000) was much below the decennial mean (21·12) and slightly below the rate of 1882 (18·88.)

The following statement shows the deaths arranged by number, cause and ratio per 1,000 in each táluka, town and cantonment in the district, and compares the district-rate with that of 1882 and the mean of the previous 10 years:—

District.	Registration Circles.	Population.	Number of Villages and Towns.	Deaths.													
				Cholera.		Small-pox.		Fevers.		Bowel Complaints.		Injuries.		Other Causes.		All Causes.	
				Number.	Ratio per 1,000.	Number.	Ratio per 1,000.	Number.	Ratio per 1,000.	Number.	Ratio per 1,000.	Number.	Ratio per 1,000.	Number.	Ratio per 1,000.	Number.	Ratio per 1,000.
Ahmedabad.	Daskrohi R. C	143,847	137	..	..	..	..	2,000	20·15	107	·71	27	·19	41	·28	2,075	21·33
	Gogha „	52,307	62	..	..	2	·14	465	21·74	45	2·05	7	·31	30	1·35	570	25·56
	Dhaodhuka „	175,107	141	73	·59	67	·58	1,827	13·40	554	4·05	30	·21	268	1·90	2,692	19·16
	Sinand „	76,964	65	2	·03	..	..	1,300	18·18	75	·98	33	·43	20	·26	1,530	19·87
	Viramgám „	117,584	105	..	..	..	..	1,778	15·12	41	·35	18	·15	53	·45	1,890	16·07
	Parántij „	107,554	101	..	..	8	·07	1,704	16·08	52	·48	33	·31	41	·38	1,838	17·05
	Dholka „	65,470	117	..	..	..	..	2,092	22·38	122	1·21	22	·24	47	·50	2,283	24·56
	Ahmedabad T.C. ...	124,767	1	69	·46	1	·01	2,020	19·25	82	·66	21	·17	1,905	15·24	4,098	40·99
	Gogha „	7,093	1	1	·14	..	..	156	19·27	47	6·65	2	·28	..	..	205	26·34
	Viramgám „	13,980	1	1	·05	9	·47	519	27·33	73	3·84	2	·11	37	1·95	641	33·73
	Dholka „	17,716	1	..	..	..	..	392	11·40	71	4·01	6	·34	45	2·54	334	18·79
	Ahmedabad C. ...	7,854	..	4	1·40	..	..	43	15·07	1	·35	..	..	19	6·66	67	23·48
	1883 ...	856,304	632	159	·16	88	·08	13,885	19·52	1,268	1·49	207	·24	2,609	3·04	20,167	23·55
	1882 ...			689	·80	23	·03	16,171	18·88	1,136	1·33	241	·28	2,464	2·88	20,714	24·20
	Mean of 10 years, 1873—82 ...			812	·97	349	·30	17,625	21·12	1,206	1·54	239	·30	3,562	4·29	23,813	29·53

Amongst the rural circles the highest death-rate from all causes (25·56 per 1,000) occurred in Gogha Táluka, in which no deaths from cholera were reported during the year. Small-pox caused only 3 deaths, whilst the death-rate from fevers was 21·74 per 1,000.

The next highest death-rate (24·53 per 1,000) took place in Dholka Táluka, in which there were no deaths either from cholera or small-pox. Fever caused 2,092 deaths, the death-rate being 22·38.

The lowest death-rate from all causes (16·07 per 1,000 of population) was found in Viramgám Táluka. There were no deaths from cholera or small-pox, whilst those of fevers amounted to 1,778 or 15·12 per 1,000.

The next lowest death-rate (17·92 per 1,000) occurred in Parántij Táluka, in which no deaths from cholera were reported during the year. Small-pox caused 8 deaths, the rate being 0·07, whilst the rate from fevers was 16·08.

Amongst the urban circles the death-rate from all causes (40·80 per 1,000 of population) in Ahmedabad town is the highest in the district. Cholera carried off 58 persons or 0·46 per 1,000. Small-pox caused only 1 death, whilst the death-rate from fevers was 24·25 per 1,000. The death-rate (27·33 per 1,000) from fevers in Viramgám town is the highest in the district.

The lowest death-rate (18·29 per 1,000) took place in Dholka town, in which no deaths from cholera or small-pox were recorded during the year, whilst the death-rate from fevers (11·40 per 1,000) is the lowest in the district. The death-rate from bowel complaints (4·01 per 1,000) is a proof that the water-supply in this town is impure.

The death-rate from bowel complaints (6·65 per 1,000) in Gogha town is the highest in the district, and the attention of the municipality is invited to the condition of its water-supply.

The death-rate from all causes in Ahmedabad Cantonment was 23·48 per 1,000 of population. Cholera carried off 4 persons or 1·40 per 1,000 of population, which amounts to 2,854. No death was recorded from small-pox, whilst the rate of fevers was 15·07. It is satisfactory to remark that no deaths from injuries took place during the year.

The mean death-rate in each town and cantonment during the last 5 years, compared with the death-rate for 1882 and 1883, was as follows:—

	Mean of 5 years.	1882.	1883.
Ahmedabad Town ...	57·23	41·20	40·80
Gogha „ ...	27·38	27·12	22·65
Viramgám „ ...	37·10	43·55	33·75
Dholka „ ...	21·60	23·94	18·29
Ahmedabad Cantonment ...	39·53	13·96	23·48

Karáchi.

55. The district of Karáchi is divided into 1 town and 13 rural circles. It contains 723 towns and villages and covers an area of 14,115 square miles. The population of the district is 478,688 and the total number of deaths from all causes in 1883 amounted to 7,173, the death-rate being 14·98 per 1,000 against 18·40 in 1882 and a decennial mean of 15·61.

The maximum monthly mortality (1,000) took place in the district in February and the minimum (389) in August.

There was no cholera in Sind during the year under review. Small-pox prevailed throughout the year in the district to a great extent and caused 270 deaths against 63 in 1882; the death-rate was 0·56 per 1,000 against 0·13 in 1882, the mean of 10 years ending 1882 being 0·13. The recorded death-rate from fevers (10·75) was below the decennial mean (11·93) and much below the rate in 1882 (14·41), whilst the death-rate from bowel complaints was 0·40 against 0·56 per 1,000 in 1882 and a decennial mean of 0·26.

The following statement shows the deaths arranged by number, cause and ratio per 1,000 in each táluka and town in the district, and compares the district rate with that of 1882 and the mean of the previous 10 years:—

District.	Registration Circles.	Population.	Number of Villages and Towns.	Deaths. Cholera. Number.	Cholera. Ratio per 1,000.	Small-pox. Number.	Small-pox. Ratio per 1,000.	Fevers. Number.	Fevers. Ratio per 1,000.	Bowel Complaints. Number.	Bowel Complaints. Ratio per 1,000.	Injuries. Number.	Injuries. Ratio per 1,000.	Other Causes. Number.	Other Causes. Ratio per 1,000.	All Causes. Number.	All Causes. Ratio per 1,000.
Karáchi	K. C.	20,356	Information not available in the Census Report.	...	...	13	·64	82	4·03	1	·05	1	·05	5	·25	102	5·01
	Kohlábas ...	11,207		...	...	12	1·07	106	9·45	...	...	7	·62	24	2·14	149	13·29
	Dádu ...	20,811		...	...	17	·81	257	12·34	3	·14	8	·38	40	1·92	325	15·62
	Sehwan ...	34,327		...	...	46	·93	857	17·96	25	·64	14	·37	123	3·20	1,145	21·69
	Manjhand ...	16,682		...	...	25	1·52	203	11·74	...	...	2	·17	44	3·77	284	15·70
	Kotri ...	24,870		...	...	4	·16	158	6·35	...	...	6	·24	46	1·85	214	8·60
	Tatta ...	30,750		...	...	14	·53	369	12·00	21	·68	22	·68	61	1·98	603	15·96
	Sitpur ...	21,711		...	...	13	·59	177	8·15	13	·59	9	·41	71	3·27	290	13·12
	Ghorábári ...	34,390		...	...	26	·82	355	10·32	...	...	25	·72	69	2·00	477	13·86
	Mirpur Bathoro ...	32,179		...	...	...	...	309	9·59	3	·09	4	·12	21	·65	337	10·46
	Bádo ...	20,314		...	...	...	...	180	8·86	21	·69	15	·69	25	·83	246	9·05
	Jati ...	27,055		...	...	1	·04	227	8·39	1	·04	9	·33	31	1·14	269	9·94
	Shahbunder ...	27,814		...	...	...	...	324	11·65	2	·08	146	5·25	18	·64	490	17·62
	Karáchi T. C. ...	68,322	1	...	...	97	1·42	858	12·56	88	1·29	29	·41	660	9·66	1,731	25·34
	1883 ...	478,688	723	...	...	270	·56	5,146	10·75	191	·40	311	·65	1,255	2·62	7,173	14·98
	1882	...	...	...	...	63	·13	6,898	14·41	267	·56	203	·55	1,316	2·75	8,807	18·40
	Mean of 10 years, 1873—82 ...	122	·29	58	·13	5,144	11·93	115	·26	592	·65	1,059	2·55	6,761	15·61		

Amongst the rural circles the highest reported death-rate from all causes (21·08 per 1,000 of population) occurred in Sehwan Táluka, in which 46 deaths or 0·85 per 1,000 from small-pox were registered, whilst the death-rate (17·06) from fevers is the highest in the district. The death-rate from bowel complaints was 0·64 per 1,000.

The lowest reported death-rate (5·08 per 1,000) took place in Karáchi Táluka, in which small-pox caused 13 deaths, the rate being 0·64 per 1,000. The death-

rate from fevers, 4·09 per 1,000, the lowest in district, proves how defective the registration is. Only 1 death from bowel complaints was recorded during the year.

In Karáchi town the death-rate of 25·19 per 1,000 was reported from all causes, which is the highest in the district. Small-pox caused 97 deaths or 1·42 per 1,000; this is also the highest rate in the district. The deaths from fevers were 858 or 12·56 per 1,000, and those from bowel complaints 88, the rate being the high one of 1·29 per 1,000.

The registration of deaths as well as that of births is carefully carried out and reflects credit on the municipality.

The mean death-rate in this town during the last 5 years, compared with the death-rate for 1882 and 1883, was as follows :—

	Mean of 5 years.	1882.	1883.
Karáchi Town...	21·16	25·51	25·19

Hyderabad.

56. The district of Hyderabad is divided into 1 town and 13 rural circles. It contains 1,105 towns and villages and covers an area of 9,039 square miles. The population of the district is 754,624 and the total number of deaths from all causes amounted to 10,922, the death-rate being 14·47 per 1,000 against 14·58 in 1882 and a decennial mean of 11·30.

The maximum monthly mortality (1,611) took place in the district in March and the minimum (535) in July.

Small-pox prevailed in the district throughout the year to a great extent and caused 500 deaths against 99 in 1882. The death-rate was 0·66 per 1,000 against 0·13 in 1882, the mean of 10 years ending 1882 being 0·12. The death-rate from fevers (12·18 per 1,000 of population) was above the decennial mean 9·41 and below the rate in 1882 (13·11); the rate from bowel complaints being 0·13 per 1,000 against 0·10 in 1882 and a decennial mean of 0·10.

The following statement shows the deaths arranged by number, cause and ratio per 1,000 in each táluka and town in the district, and compares the district rate with that of 1882 and the mean of the previous 10 years :—

District.	Registration Circles.	Population.	Number of Villages and Towns.	Deaths. Cholera. Number.	Cholera. Ratio per 1,000.	Small-pox. Number.	Small-pox. Ratio per 1,000.	Fevers. Number.	Fevers. Ratio per 1,000.	Bowel Complaints. Number.	Bowel Complaints. Ratio per 1,000.	Injuries. Number.	Injuries. Ratio per 1,000.	Other Causes. Number.	Other Causes. Ratio per 1,000.	All Causes. Number.	All Causes. Ratio per 1,000.
Hyderabad.	Hyderabad R. C.	37,390	Information not available in the Census Report.	...	...	74	1·98	443	11·85	10	0·27	23	0·62	35	0·93	584	15·62
	Gúni ,,	71,566		...	...	51	0·71	566	8·13	1	0·01	26	0·36	67	0·93	711	9·94
	Badin ,,	65,708		...	...	1	0·02	709	8·93	3	0·04	29	0·44	30	0·46	362	5·51
	Tando Bago ,,	55,473		...	...	1	0·02	503	9·07	2	0·04	41	0·74	26	0·47	583	10·51
	Dero Mobhat ,,	37,460		...	...	27	0·59	345	9·20	...	...	21	0·56	21	0·56	419	11·24
	Hála ,,	74,149		...	...	116	1·51	666	8·92	13	0·17	43	0·55	39	0·49	876	11·41
	Tando Allahyar ,,	86,126		...	...	61	0·64	868	10·28	3	0·03	26	0·27	14	0·21	986	12·56
	Shahdádpur ,,	55,503		...	...	50	0·90	643	11·57	12	0·23	47	0·85	20	0·54	792	14·07
	Mirpur Khás ,,	78,979		...	...	6	0·74	911	9·44	3	0·12	10	0·64	19	0·26	950	10·20
	Kandiáro ,,	50,256		...	...	4	0·10	746	14·91	15	0·29	26	0·66	8	0·29	791	16·18
	Nawábsháh ,,	61,206		...	...	5	0·08	1,231	14·96	6	0·10	45	0·73	24	0·39	1,311	16·28
	Moro ,,	44,443		...	...	3	0·71	800	17·26	...	...	28	0·63	12	0·27	916	20·59
	Sákrand ,,	52,873		...	...	4	0·08	893	17·14	2	0·04	34	0·65	22	0·43	955	18·24
	Hyderabad T. C. ,,	48,151	1	...	...	139	2·73	788	17·44	19	0·42	16	0·35	336	7·43	1,298	28·58
	1883	754,624	1,105	..	..	500	·66	9,188	12·18	98	·13	453	·60	802	·97	10,922	14·47
	1882	..	..	..	..	99	·13	9,894	13·11	79	·10	411	·54	517	·69	11,000	14·58
	Mean of 10 years, 1873—82			143	·20	88	·12	6,856	9·41	75	·10	477	·65	691	·91	8,729	11·30

Amongst the rural circles the highest reported death-rate from all causes (26·28 per 1,000 of population) occurred in Naushahro Táluka, in which only 5 deaths or 0·08 per 1,000 from small-pox were registered during the year, whilst the death-rate from fevers (24·98) is the highest in the district. The rate from bowel complaints was 0·10 per 1,000.

The next highest death-rate 20·59 per 1,000 like that of 20·10 in Kandiaro Táluka took place in Moro Táluka, in which the deaths from small-pox were only 5 or 0·11 per 1,000. Fever caused 860 deaths or 19·36 per 1,000, whilst no deaths from bowel complaints were recorded during the year.

The lowest death-rate (5·51 per 1,000) took place in Badin Táluka, in which small-pox caused only 1 death; the rate was 0·02 per 1,000. The death-rate from fevers (4·55 per 1,000) is the lowest in the district and proves that the registration is defective. There were only 3 deaths from bowel complaints recorded during the year; the rate 0·04 per 1,000 like that of Sakrand Táluka is the lowest in the district.

In Hyderabad town the death-rate of 28·36 per 1,000 was reported from all causes, which is the highest in the district. Small-pox caused 123 deaths or 2·72 per 1,000; this is also the highest rate in the district. The deaths from fevers were 788 or 17·44 per 1,000 and those from bowel complaints 19, the rate 0·42 per 1,000 being the highest in the district.

The mean death-rate in this town during the last 5 years, compared with the death-rate for 1882 and 1883, was as follows :—

	Mean of 5 years.	1882.	1883.
Hyderabad Town	29·16	28·83	28·36

Thar and Párkar.

57. The district of Thar and Párkár is divided into 1 town and 7 rural circles. It contains 73 towns and villages and covers an area of 12,729 square miles. The population of the district is 203,344 and the total number of deaths from all causes amounted to 3,896, the death-rate being 19·16 per 1,000 against 17·20 in 1882 and a decennial mean of 12·06.

The maximum monthly mortality (815) took place in the district in March and the minimum (160) in August.

Small-pox caused 13 deaths against 1 in 1882; the rate was 0·06 per 1,000 against none in 1882 and a decennial mean of 0·05. The death-rate from fevers (17·85 per 1,000 of population) was above the decennial mean (10·69) and also above the rate in 1882 (15·30); the rate from bowel complaints being 0·04 per 1,000 against 0·04 in 1882 and a decennial mean of 0·18.

The following statement shows the deaths arranged by number, cause and ratio per 1,000 in each táluka and town in the district, and compares the district rate with that of 1882 and the mean of the previous 10 years :—

District.	Registration Circles.	Population.	Number of Villages and Towns.	Deaths.											
				Cholera.		Small-pox.		Fevers.		Bowel Complaints.		Injuries.		Other Causes.		All Causes.	
				Number.	Ratio per 1,000.	Number.	Ratio per 1,000.	Number.	Ratio per 1,000.	Number.	Ratio per 1,000.	Number.	Ratio per 1,000.	Number.	Ratio per 1,000.	Number.	Ratio per 1,000.
Thar and Parkar.	Umarkot R. C.	28,807	18	...	...	1	·03	692	17·93	...	...	23	·56	33	1·24	767	19·78
	Chelhar ,, ...	27,046		...	...	...	...	677	19·37	5	·14	21	·57	72	·59	725	19·57
	Sagar ,, ...	27,242		...	...	9	·24	741	19·77	...	...	6	·16	7	·18	763	19·35
	Mitti ,, ...	25,611		...	...	...	...	477	21·09	...	...	23	·93	37	1·64	535	23·66
	Dipla ,, ...	17,174		...	...	...	...	445	20·90	...	...	23	1·79	1	·06	469	27·94
	Khipra ,, ...	26,079		...	...	1	·04	556	9·82	1	·01	5	·19	39	·78	272	10·47
	Sanghar ,, ...	31,247		...	...	2	·09	263	11·95	...	...	4	·19	8	·27	269	12·49
	Umarkot T. C.	2,825		...	...	...	...	87	30·76	2	·71	...	...	7	2·48	96	33·96
	1882 ...	216,744	73	...	...	13	·06	3,639	17·95	8	·04	101	·50	184	·71	3,896	19·16
	1881 ...			2	·01	1	...	3,311	15·96	3	·01	105	·52	270	1·25	3,402	17·20
	Mean of 10 years, 1873—1882 ...		20	·71	9	·05	1,561	10·08	25	·18	91	·44	169	·79	2,255	12·06

Amongst the rural circles the highest reported death-rate from all causes (27·34 per 1,000 of population) occurred in Dipla Táluka in which no death from small-pox was registered, whilst the death-rate from fevers (26·00 per 1,000) is the highest in the district. No death from bowel complaints was recorded during the year.

The next highest reported death-rate (23·66 per 1,000) took place in Mitti Táluka, in which the death-rate from fevers was 21·09. No deaths from either small-pox or bowel complaints were reported in this táluka during the year.

The lowest death-rate from all causes (10·47 per 1,000) occurred in Khipra Táluka, in which only 1 death or 0·04 per 1,000 took place from small-pox. The death-rate from fevers (9·82 per 1,000) is the lowest in the district. There was only 1 death recorded from bowel complaints during the year; the rate was 0·04 per 1,000.

The registration appears to be defective both in Khipra and Sanghar talukas, but in the remaining tálukas to be carefully carried out, contrasting most favourably with respect to the Karáchi and Hyderabad zillas.

In Umarkot town the death-rate of 33·95 per 1,000 was registered from all causes, which is the highest in the district. Small-pox caused no death, whilst the death-rate from fevers (30·76 per 1,000) is the highest in the district. There were 2 deaths or 0·71 per 1,000 registered from bowel complaints during the year.

The mean death-rate in this town during the last 5 years, compared with the death-rate for 1882 and 1883, was as follows:—

	Mean of 5 years.	1882.	1883.
Umarkot Town ...	... 39·25	50·21	33·95

58. The district of Shikárpur is divided into 17 rural and 3 town circles. It contains 1,373 towns and villages and covers an area of 10,001 square miles. The population of the district is 852,986 and the total number of deaths from all causes amounted to 13,450, the death-rate being 15·77 per 1,000 against 20·87 in 1882 and a decennial mean of 10·92.

Shikárpur.

The maximum monthly mortality (2,127) took place in the district in January and the minimum (537) in August.

Small-pox caused only 4 deaths during the year against 29 in 1882. The mean mortality of 10 years was 129 or 0·16 per 1,000. The death-rate from fevers (14·70 per 1,000 of population) was above the mean (9·51) and below the rate in 1882 (19·66).

The death-rate from bowel complaints was 0·21 against 0·23 per 1,000 in 1882 and a decennial mean of 0·25.

The following statement shows the deaths arranged by number, cause and ratio per 1,000 in each táluka and town in the district, and compares the district rate with that of 1882 and the mean of the previous 10 years :—

District.	Registration Circles.	Population.	Number of Villages and Towns.	Deaths. Cholera. Number.	Cholera. Ratio per 1,000.	Small-pox. Number.	Small-pox. Ratio per 1,000.	Fevers. Number.	Fevers. Ratio per 1,000.	Bowel-Complaints. Number.	Bowel-Complaints. Ratio per 1,000.	Injuries. Number.	Injuries. Ratio per 1,000.	Other Causes. Number.	Other Causes. Ratio per 1,000.	All Causes. Number.	All Causes. Ratio per 1,000.
Shikárpur.	Shikárpur R. C. ..	28,636	Information not available in the Census Report.	..	..	..	..	234	10·24	..	..	13	0·49	1	0·05	248	10·82
	Sukkur	51,516		..	..	..	..	747	14·77	7	0·14	20	0·39	9	0·17	783	14·92
	Naushahro ..	58,726		..	..	..	..	1,234	22·13	31	0·56	25	0·45	12	0·21	1,304	23·40
	Kubri	60,562		..	..	..	..	1,070	4·66	53	0·77	28	0·41	12	0·17	1,163	16·95
	Sakhpur	61,501		..	..	..	..	1,065	17·32	3	0·05	20	0·32	3	0·05	1,091	17·77
	Ghotki																
	Mirpur	39,712		..	..	..	..	524	13·40	4	0·10	14	0·35	1	0·03	544	13·90
	Ubauro	38,878		..	..	..	..	286	7·36	6	0·15	15	0·38	1	0·03	308	7·92
	Lárkhána	65,942		..	..	..	..	465	7·07	..	..	26	0·39	1	0·01	492	7·59
	Kambar	91,599		..	..	..	..	844	9·22	9	0·09	25	0·27	8	0·09	879	9·60
	Rahodero	41,500		..	..	..	..	479	11·49	3	0·09	14	0·33	2	0·05	497	11·95
	Sujáwal	18,367		..	..	..	..	249	13·56	1	0·05	10	0·54	2	0·11	262	14·27
	Labdarya	25,096		..	..	..	..	318	12·67	3	0·11	10	0·40	1	0·03	334	13·31
	Mehar	24,377		..	..	..	..	780	32·51	12	0·49	11	0·45	4	0·16	809	33·21
	Kakar	45,500		..	..	..	..	989	19·76	..	..	29	0·58	3	0·11	1,020	20·20
	Tiyar	31,803		..	..	..	..	602	18·93	..	..	24	0·75	4	0·13	630	19·71
	Nasratpur	46,278		..	..	..	..	896	19·41	5	0·10	19	0·41	5	0·11	925	20·03
	Travelling population ..	760		..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Shikárpur T. C. ..	41,697		..	..	4	·09	599	14·10	2	0·05	15	0·35	114	2·73	734	17·32
	Sukkur	27,288	1	..	..	..	..	459	15·93	45	1·57	23	0·84	79	2·95	564	20·59
	Lárkhána	13,183	1	..	..	..	..	311	23·66	..	..	0	0·00	82	6·93	413	31·24
	1882 ..	632,896	1,273	..	..	8	..	12,542	14·70	181	·21	364	·43	269	·32	13,459	15·77
	1883 ..			..	..	29	·02	16,772	19·06	200	·23	355	·29	408	·35	17,462	20·67
	Mean of 10 years, 1873—1882 ..		156	12	129	16	7,331	9·51	201	·25	302	·39	242	·43	8,046	10·99

N.B.—The deaths in Shikárpur R. C. are included in Ghotki R. C.

Amongst the rural circles the reported death-rate from all causes (33·77 per 1,000 of population) in Mehar Táluka is the highest in the district. Small-pox caused no deaths, whilst the death-rate from fevers (32·51 per 1,000) is the highest in the district. There were 12 deaths from bowel complaints; the rate was 0·49 per 1,000.

The next highest death-rate (23·40 per 1,000) took place in Naushahro Táluka, in which no death from small-pox was reported. Fever caused 1,233 deaths or 22·13 per 1,000, whilst the death-rate from bowel-complaints was 0·56 per 1,000.

The lowest death-rate (7·59 per 1,000) from all causes like that of 7·89 in Lárkhána Táluka took place in Ubauro Táluka, in which there were no deaths from small-pox. The death-rate from fevers (7·09 per 1,000) is the lowest in the district. The rate from bowel complaints was 0·20.

The reported death-rates in several of the tálukas of this Collectorate show how little attention is paid to the registration of deaths.

Amongst the urban circles the highest death-rate from all causes (31·24 per 1,000) occurred in Lárkhána town. Small-pox caused no deaths, whilst the death-rate from fevers was 23·66 per 1,000. No death from bowel complaints was recorded during the year.

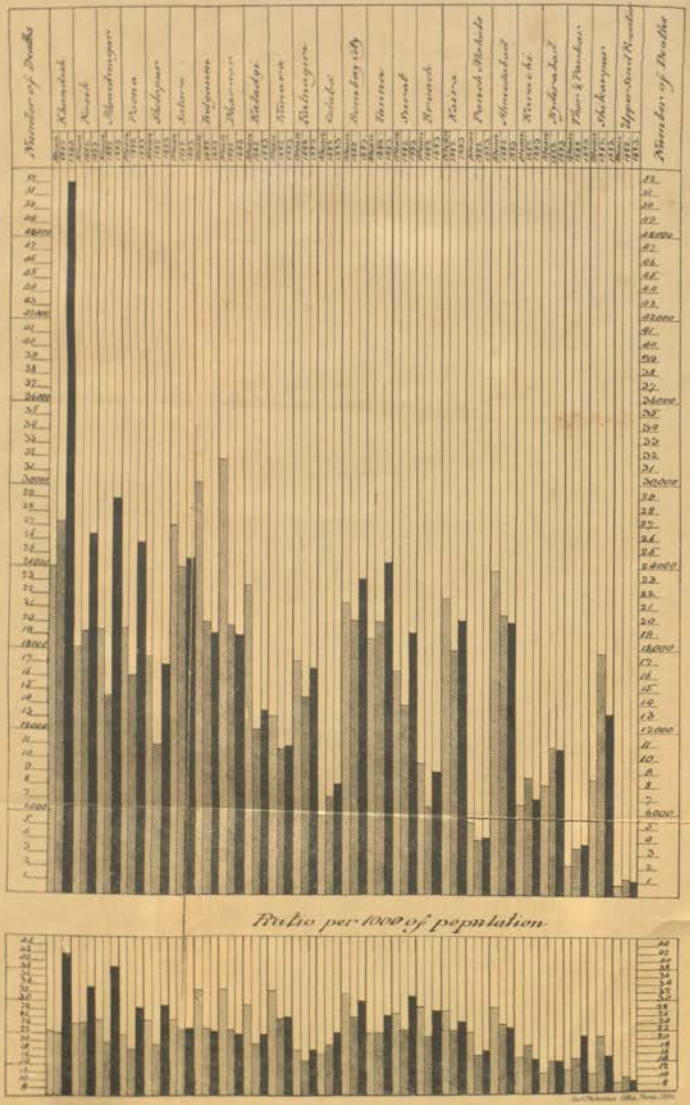
The lowest death-rate (17·32 per 1,000) took place in Shikárpur town, in which 4 deaths or 0·09 per 1,000 from small-pox were registered during the year. Fever caused 599 deaths or 14·10 per 1,000, whilst the rate from bowel-complaints was 0·05 per 1,000. In Sukkur town the death-rate (1·57 per 1,000) from bowel complaints is the highest in the district.

The mean death-rate in each town during the last 5 years, compared with the death-rate for 1882 and 1883, was as follows :—

	Mean of 5 years.	1882.	1883.
Shikárpur Town	22·14	21·48	17·32
Sukkur „	13·14	23·11	20·59
Lárkhána „	18·58	42·69	31·24

Diagram

Showing for each District the total number of registered deaths and their ratio per 1000 of population in 1882 & 1883 and the mean for the 10 years ending 1882.



8-1935

Upper Sind Frontier.

59. The district of Upper Sind Frontier is divided into 1 town and 3 rural circles. It contains 143 towns and villages and covers an area of 1,877 square miles. The population of the district is 124,181, and the total deaths from all causes amounted to 1,141, the death-rate being 9·19 per 1,000 against 9·90 in 1882 and a decennial mean of 8·44.

The registration in this district is extremely defective, and I trust Government will be pleased to order more attention being paid to it.

The maximum monthly mortality (134) took place in the district in February and the minimum (70) in September.

Small-pox caused no deaths in the district during the year. The death-rate from fevers (8·47 per 1,000) was above the decennial mean (6·91) and slightly below the rate in 1882 (8·94). The death-rate from bowel complaints was 0·23 per 1,000 against 0·24 in 1882 and a decennial mean of 0·30.

The following statement shows the deaths arranged by number, cause and ratio per 1,000 in each táluka and town in the district, and compares the district rate with that of 1882 and the mean of the previous 10 years :—

District.	Registration Circles.	Population.	Number of Villages and Towns.	Deaths. Cholera. Number.	Cholera. Ratio per 1,000.	Small-pox. Number.	Small-pox. Ratio per 1,000.	Fevers. Number.	Fevers. Ratio per 1,000.	Bowel Complaints. Number.	Bowel Complaints. Ratio per 1,000.	Injuries. Number.	Injuries. Ratio per 1,000.	Other Causes. Number.	Other Causes. Ratio per 1,000.	All Causes. Number.	All Causes. Ratio per 1,000.
Upper Sind Frontier.	Jacobabad R. C. ..	15,972	Information not available in the Census Report.	..	..	..	..	150	5·77	..	..	9	·12	1	·04	154	9·83
	Thul " ..	43,025		..	..	..	..	391	9·08	6	·19	9	·10	2	·07	410	9·53
	Kashmor " ..	43,832		..	..	..	..	399	9·10	6	·14	6	·14	9	·20	420	9·58
	Jacobabad T. C. ..	11,252	1	..	..	..	..	111	9·78	14	1·23	6	·53	26	2·29	157	13·83
	1882 ..	124,181	143	..	..	..	..	1,051	8·47	28	·23	23	·18	34	·21	1,141	9·19
			1882 ..	..	..	..	..	1,110	8·94	30	·24	46	·37	44	·35	1,230	9·90
	Mean of 10 years, 1873—1882 ..			10	·10	17	·18	669	6·91	29	·30	37	·38	55	·57	817	8·44

Amongst the rural circles the highest reported death-rate from all causes (9·58 per 1,000) occurred in Kashmor Táluka, in which fever caused 399 deaths or 9·10 per 1,000 of population.

The lowest death-rate (5·93 per 1,000) was reported in Jacobabad Táluka. The death-rate from fevers (5·77 per 1,000) is the lowest in the district. No death from bowel complaints was recorded during the year.

In Jacobabad town the death-rate of 13·83 per 1,000 of population was reported from all causes, which is the highest in the district. The deaths from fevers were 111 and from bowel complaints 14, the respective rates per 1,000, 9·78 and 1·23, are the highest in the district.

The mean death-rate in this town during the last 5 years, compared with the death-rate for 1882 and 1883, was as follows :—

	Mean of 5 years.	1882.	1883.
Jacobabad Town	18·85	15·59	13·83

Diagram showing the number of deaths registered in each district for 1882, and 1883 and the mean for 10 years and their ratio per 1,000 of population.

60. The diagram on the opposite page shows the number of deaths registered in each district for 1882 and 1883 contrasted with the mean for 10 years ending with 1882 and their ratio per 1,000 of population.

61. In concluding this review of the deaths by districts it may be useful to invite the especial attention of Government to the high death-rates in the following towns with the hope that the necessity for measures being taken to reduce them may be pointed out to the president of each municipality.

At Pandharpur the death-rate amounted to the enormously high rate of 64·58 per 1,000.

Do.	Násik	do.	,,	61·08 do.
Do.	Panvel	do.	,,	45·11 do.
Do.	Bársi	do.	,,	40·93 do.
Do.	Ahmedabad	do.	,,	40·80 do.
Do.	Alibág	do.	,,	37·95 do.
Do.	Sangamner	do.	,,	35·47 do.
Do.	Jambusar	do.	,,	35·46 do.
Do.	Nandurbár	do.	,,	34·94 do.
Do.	Kaira	do.	,,	34·49 do.
Do.	Surat	do.	,,	34·06 do.
Do.	Umarkot	do.	,,	33·95 do.
Do.	Nadiád	do.	,,	33·92 do.
Do.	Athni	do.	,,	32·99 do.
Do.	Lárkhána	do.	,,	31·24 do.
Do.	Bombay City	do.	,,	30·08 do.

Statistics for Cantonment Bázárs in quasi-foreign territory.

62. The following table shows the births and deaths and their respective ratios per 1,000 of population for those cantonment bázárs situated in quasi-foreign territory. From this it will be seen that in 1883 the total number of births registered in these cantonments during the year was 2,022 against 2,103 in 1882, the birth-rate being 20·90 per 1,000 of population against 21·93 in 1882. In 3 out of the 9 cantonments the birth-rate is higher than it was in 1882, viz:—

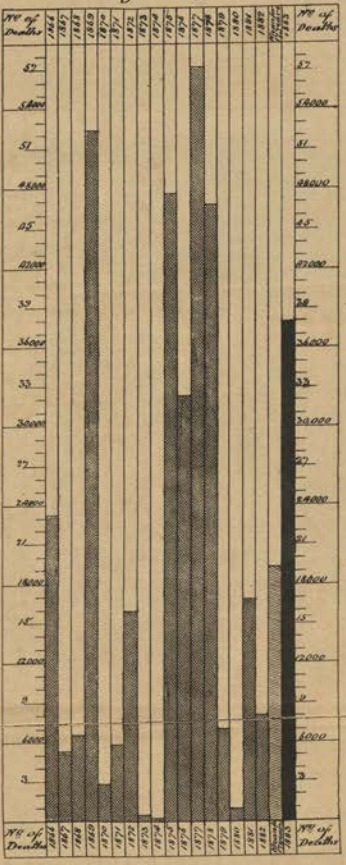
	1883.	1882.
Aden... ...	... 6·39	6·13
Neemuch ...	... 20·18	11·09
Rájkot ...	... 2·62	...

At the following stations the birth-rates were very low: Baroda 6·21 against 9·53 in 1882, Deesa 10·74 against 14·33. At the undermentioned stations it was lower than 1882: at the Mhow 26·21 against 30·62 and Nasirabad 50·98 against 51·81. In Rájkot Cantonment with a population stated to amount to 4,965 only 13 births were registered during the year. The total number of deaths in these cantonments during 1883 was 2,726 equal to a ratio of 28·17 per 1,000 against 2,727 or 28·43 per 1,000 of population in 1882. From cholera only 9 deaths were reported during the year against 56 in 1882 in the following stations; 1 in Deesa and 8 in Nasirabad cantonments. From small-pox there were 21 deaths against 16 in 1882, 14 of which were reported from Nasirabad and 7 from Aden. The deaths from fevers were 1,160 against 1,240 in 1882, and from bowel complaints 309 against 273. Injuries caused 29 deaths against 35 in 1882, and the number from all other causes amounted to 1,198 against 1,107 in 1882.

Cantonments.	Civil Population according to Census of 1881.	Area in square miles.	Adopted Population per square mile.	Number of Deaths.						Ratio per 1,000 of Population.						Births.	Ratio of Births per 1,000 of Population.
				Cholera.	Small-pox.	Fevers.	Bowel Complaints.	Injuries.	All other Causes.	Total.	Cholera.	Small-pox.	Fevers.	Bowel Complaints.	Injuries.	All other Causes.	Total.		
Aden ...	21,709	11	2945·27	...	7	333	163	10	462	975	..	0·32	15·34	7·51	0·32	14·76	31·25	200	6·39
Baroda ...	5,412	...	5,412	...	...	55	...	...	5	60	..	..	10·16	..	..	0·97	11·08	15	6·21
Jibuti ...	250	1·04	240·38	...	...	6	...	...	2	8	..	..	24·00	..	..	8·00	32·00	2	8·00
Deesa ...	6,370	...	6370·00	...	1	53	12	2	19	87	0·15	..	8·32	1·88	0·31	2·98	13·66	68	10·74
Mhow ...	118	...	30·56	...	...	4	...	...	1	5	..	..	33·90	12·70	..	8·45	42·35	3	26·26
Mhow ...	17,471	6·62	2687·85	...	7	209	7	7	124	354	..	0·40	11·96	1·43	0·40	7·09	20·26	458	26·21
Neemuch ...	12,609	4·62	2730·34	...	...	139	...	...	87	226	..	..	11·02	..	..	6·90	17·92	255	20·18
Nasirabad ...	20,175	6·62	3048·17	8	14	211	94	10	281	618	0·40	0·70	10·46	4·66	0·50	13·93	30·63	315	15·61
Rájkot ...	4,965	...	Not given.	...	...	2	3	...	4	14	..	..	0·40	0·60	..	0·80	2·80	13	2·62
Total ...	90,705	30·06	3017·99	9	21	1,160	309	29	1,198	2,726	0·09	0·21	11·70	3·12	0·29	12·08	28·17	2,022	20·90

Diagram

Showing the mortality from Cholera in the Bombay Presidency during the 18 years ending 1885



Ratio per 1000 of Population.

Govt. Photozincotype Office, Poona. 1886.

A-1455

SECTION II.

HISTORY OF CHIEF DISEASES.

CHOLERA.

Total mortality from cholera.

During 1883 cholera caused 37,954 deaths throughout the Presidency. The epidemic, as will be seen from the following table, was most severely felt in the Northern Deccan Registration District as 30,298 of these deaths were recorded in it, of which 10,914 took place in Khándesh; but the highest death-rate (9·81 per 1,000) occurred in the Ahmednagar Collectorate. No deaths from this disease were recorded in the Sind District:—

Divisions.		Districts.	Population according to Census of 1881.	Mean for 10 years, 1873–82.		1882.		1883.	
				No. of Deaths.	Ratio per 1,000 of Population.	No. of Deaths.	Ratio per 1,000 of Population.	No. of Deaths.	Ratio per 1,000 of Population.
Northern Deccan.	1	Khándesh	1,237,331	1,747	1·63	135	0·11	10,914	8·82
	2	Násik	731,306	793	1·06	201	0·28	4,126	5·36
	3	Ahmednagar	751,228	1,419	1·93	162	0·24	7,368	9·81
	4	Poona	909,621	1,483	1·64	211	0·23	5,279	5·80
	5	Sholápur	392,487	1,201	1·79	490	0·82	2,544	4·27
Southern Deccan.	6	Sátára	1,062,250	2,007	1·92	2,406	2·26	1,220	1·14
	7	Belgaum	964,014	2,350	2·04	1,224	1·54	479	0·35
	8	Dhárwár	862,907	2,010	2·08	130	0·13	28	0·03
	9	Kolápur	698,405	1,627	2·73	542	0·85	1,068	1·68
Konkan ...	10	Kánara	421,840	386	0·96	..	..	1	..
	11	Ratnágiri	907,690	541	0·53	90	0·10	91	0·09
	12	Kolába	392,849	648	1·26	140	0·28	400	1·81
	13	Bombay City	773,196	667	0·81	190	0·25	1,014	1·21
	14	Thána	908,548	1,205	1·62	774	0·85	2,268	2·53
Gujarát ...	15	Surat	634,198	909	1·53	9	0·01	591	0·96
	16	Broach	326,939	367	0·89	1	..	68	0·27
	17	Kaira	934,800	579	0·71	288	0·33	382	0·45
	18	Panch Maháls	355,479	566	2·23	..	..	28	0·11
	19	Ahmedábád	856,224	613	0·95	689	0·80	139	0·16
Sind ...	20	Karáchi	473,668	122	0·23	..	..	..	..
	21	Hyderábád	754,624	143	0·16	..	..	..	..
	22	Thar and Párkar	302,344	90	0·11	2	0·01	..	..
	23	Shikárpur	892,996	136	0·12	..	..	..	..
	24	Upper Sind Frontier	124,181	10	0·10	..	..	..	..

ABSTRACT.

1	Northern Deccan	4,256,773	6,674	1·69	1,309	0·31	30,298	7·13
2	Southern Deccan	3,487,704	8,144	2·17	4,413	1·26	2,774	0·79
3	Konkan	3,443,323	3,377	1·05	1,313	0·85	3,904	1·09
4	Gujarát	2,857,740	2,063	1·09	987	0·54	1,132	0·59
5	Sind	2,418,323	421	0·19	2	..	..	..
	Total ..	16,464,414	21,021	1·63	7,904	0·48	37,954	2·31

Mortality for 18 years from 1866 to 1883.

2. The deaths from cholera in each of the 18 years ending 1883 were as follows. (See diagram on the opposite page):—

1866	... ...	23,027	1875	... ...	47,555
1867	... ...	5,143	1876	... ...	32,117
1868	... ...	6,347	1877	... ...	57,252
1869	... ...	52,330	1878	... ...	46,743
1870	... ...	2,666	1879	... ...	6,937
1871	... ...	5,821	1880	... ...	684
1872	... ...	15,642	1881	... ...	16,694
1873	... ...	283	1882	... ...	7,904
1874	... ...	37	1883	... ...	37,954

so that the number of cholera deaths in 1883 exceeds the decennial mean by 16,333 and those in 1882 by 30,050, and was only exceeded in 1869 when 52,330 deaths were registered, in 1875 when 47,555 were recorded, and in 1877 and 1878 when the deaths ascribed to cholera amounted to 57,252 and 46,743 respectively.

3. The next table shows the mean mortality from cholera for the past 10 years in each month, the results of 1882 and of 1883. The monthly distribution by districts and the ratios are for easy reference projected on the diagram on the opposite page :—

Mortality by months.

Months	Mean for 10 Years (1873–1882.)		1882.		1883.		Deaths by Districts during 1883.																								
	No. of Deaths.	Ratio per 1,000 of Population.	No. of Deaths.	Ratio per 1,000 of Population.	No. of Deaths.	Ratio per 1,000 of Population.	Khandesh.	Nasik.	Ahmednagar.	Poona.	Sholapur.	Satara.	Belgaum.	Dharwar.	Kolaba.	Kanara.	Ratnagiri.	Kolaba.	Bombay City.	Thana.	Surat.	Broach.	Kaira.	Panch Mahals.	Ahmedabad.	Kaira.	Panch Mahals.
January	628	0·04	372	0·02	28	..	..	..	..	6	..	..	..	19	0	..	..	..	..	3	..	..	..	..	..	..	..	..	..	..	..	..
February	713	0·04	297	0·02	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..
March	1,245	0·08	281	0·02	18	..	..	17	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..
April	1,008	0·12	754	0·04	936	0·06	..	674	71	72	71	49	6	..	2	..	..	..	..	15	54	..	..	..	..	..	..	..	..	..	..	..
May	3,203	0·20	1,805	0·11	5,622	0·36	837	1,410	718	1,178	547	58	160	1	190	..	39	64	693	124	..	..	..	..	..	..	..	..	..	..	..	..
June	3,818	0·24	1,170	0·07	9,447	0·58	3,324	1,239	2,177	2,386	192	93	99	..	205	..	4	651	34	823	1	..	..	..	..	..	..	..	..	..	..	..
July	5,712	0·35	908	0·06	12,708	0·77	5,214	860	2,600	1,083	1,715	234	303	3	139	..	8	902	791	557	42	8	..	..	..	..	..	..	..	..	..	..
August	5,150	0·29	1,936	0·07	6,783	0·41	2,629	376	600	470	670	414	160	..	269	..	29	146	429	456	88	8	276	..	..	..	..	..	..	..	..	..
September	1,503	0·08	613	0·04	1,230	0·08	71	9	66	58	139	210	38	..	70	..	18	98	156	163	54	68	6	..	..	..	..	..	..	..	..	..
October	696	0·03	362	0·02	695	0·04	..	..	34	20	9	142	37	..	69	..	19	6	51	253	311	11	8	25	..	..	..	..	..	..	..	..
November	437	0·03	146	0·01	340	0·02	3	..	2	12	19	64	7	8	19	..	6	12	4	21	167	1	..	..	..	..	..	..	..	..	..	..
December	437	0·03	41	..	146	0·01	..	..	..	..	2	6	..	7	6	1	..	..	6	22	49	26	6	..	..	..	..	..	..	..	..	..
Total	21,671	1·23	7,594	0·43	37,904	2·33	10,914	4,102	7,308	5,279	3,544	1,220	879	38	1,009	1	83	400	1,054	2,256	591	80	295	25	..	..	..	..	..	..	..	..

It will be seen that the minimum mortality from cholera as a rule takes place during the cold season—November to February. In March there is a marked rise and in April a still further increase, but in May a decided intensity is observed, and the maximum for the year is reached in June or July. In August the disease usually commences to abate and a progressive fall takes place month by month until the end of the year.

4. In 1883 the disease in the month of January had nearly died out as only 28 deaths were recorded throughout the Presidency. In February it had almost entirely disappeared as only one doubtful case was reported. In March 18 deaths occurred, but in April the disease suddenly assumed an epidemic form as 936 deaths were recorded. During May a still further increase took place as 5,622 deaths were reported. In June 9,447 deaths occurred, and in July the mortality rose to the very serious amount of 12,708, the maximum for the year. In August the disease began to abate rapidly as only 6,783 deaths were reported, and in September the mortality fell to 1,230, in October to 695. A further fall was observed in November as only 340 deaths were reported; and in December the disease had still further declined as only 146 deaths were registered. (See diagram on the opposite page.)

Monthly mortality for 1883.

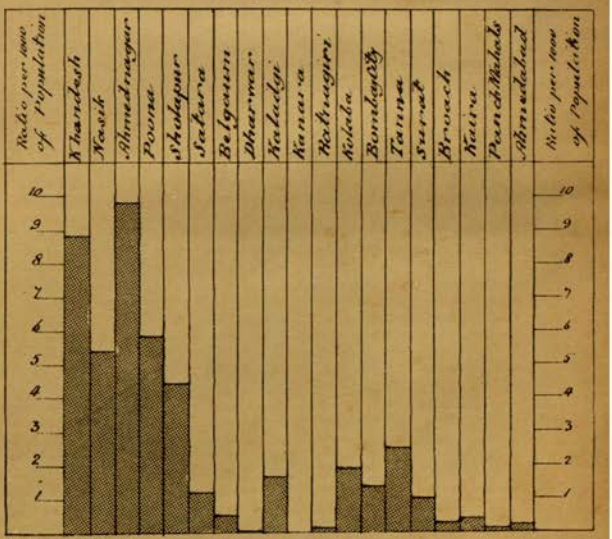
5. The next statement shows the total number of registration circles and their populations arranged by districts; the number of circles affected by cholera and the population living in each; the number of attacks reported in each district; the number of deaths; the death-rate arranged by sexes; the percentage of affected villages to total villages; and the percentage of deaths to attacks in each district :—

Details of attacks and deaths and death-rates by districts and by sexes.

Division.	Districts.	Total Number of Registration Circles and their Collective Population.					Number of Circles affected by Cholera and the Population living in each.					Attacks.	Deaths.			Ratio of Deaths per 1,000 of Population.			Percentage of affected Villages to total Villages.	Percentage of Deaths to Attacks.
		Rural Circles.	Town Circles.	Cantonment Circles.	Villages.	Total Population.	Rural Circles.	Town Circles.	Cantonment Circles.	Villages.	Population living in affected Districts.		Males.	Females.	Total.	Males.	Females.	Total.		
Northern Division.	1 Khandesh	22	1	..	2,879	1,297,233	22	1	..	794	736,755	10,914	5,573	5,341	10,914	0·87	0·87	0·87	29·32	65·70
	2 Nasik	12	1	..	1,271	747,296	12	1	..	387	357,530	4,102	2,102	2,000	4,102	0·62	0·61	0·62	30·99	53·09
	3 Ahmednagar	11	1	..	1,391	733,276	11	1	1	693	535,977	7,308	3,709	3,599	7,308	0·94	0·95	0·95	49·81	67·76
	4 Poona	9	3	1	1,151	900,071	7	3	1	411	462,236	5,279	2,702	2,577	5,279	0·68	0·66	0·67	29·98	87·74
	5 Sholapur	7	2	..	793	581,807	7	2	..	279	346,816	3,544	1,813	1,731	3,544	0·79	0·76	0·77	39·08	49·25
Southern Division.	6 Satara	12	1	..	1,341	1,009,559	11	1	..	149	284,479	1,220	653	564	1,220	0·17	0·15	0·16	11·12	44·09
	7 Belgaum	7	1	1	1,072	864,014	6	1	..	74	70,409	879	458	421	879	0·05	0·05	0·05	6·90	37·14
	8 Dharwar	14	2	..	1,283	692,867	4	..	..	5	7,267	38	18	20	38	0·04	0·05	0·05	0·70	42·85
	9 Kolaba	8	2	..	1,149	618,403	8	1	..	146	176,255	2,266	948	849	1,809	0·58	0·56	0·56	12·83	49·96
Konkan.	10 Kanara	11	2	..	1,109	825,846	1	..	..	..	10,766	1	1	..	1	0·00	0·00	0·00	..	100·00
	11 Ratnagiri	8	1	..	1,676	1,077,000	3	1	..	10	15,618	195	95	90	185	0·03	0·03	0·03	0·59	94·87
	12 Kolaba	6	1	..	973	561,595	6	1	..	60	71,451	1,009	497	512	1,009	0·29	0·30	0·29	6·16	55·70
	13 Bombay City	..	1	..	..	773,196	..	1	..	..	773,196	1,409	677	732	1,409	1·02	1·06	1·04	..	..
	14 Thana	11	3	..	2,004	809,549	11	3	..	129	319,355	1,351	1,127	1,129	2,256	0·52	0·56	0·53	6·16	59·70

Diagram

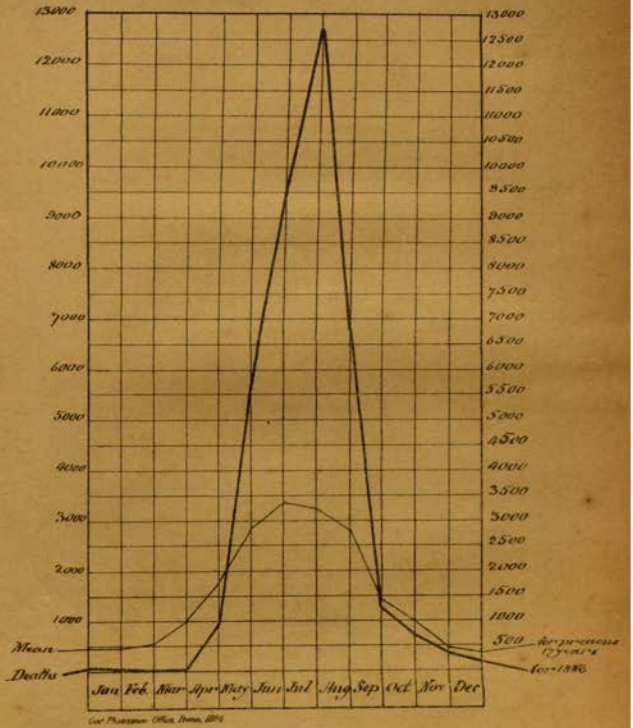
Showing the mortality per 1000 of population from Cholera in the affected Districts during the year 1883



Govt Photozincco Office Poona 1884

Diagram

Showing the monthly mortality from Cholera in the Bombay Presidency for 1883, & the mean for the previous 17 years.



Cot. Photozinco Office, Poona, 1884

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No. of Districts.	Districts.	Total Number of Registration Circles and their Collective Population.					Number of Circles affected by Cholera and the Population living in each.					Deaths.			Ratio of Deaths per 1,000 of Population.			Percentage of affected Villages to total Villages.	Percentage of Deaths to Attacks.
		Rural Circles.	Town Circles.	Cantonment Circles.	Villages[1].	Total Population.	Rural Circles.	Town Circles.	Cantonment Circles.	Villages.	Population living in affected Districts.	Attacks.	Males.	Females.	Total.	Males.	Females.	Total.		
Gujarát. 15	Surat	6	2	..	760	614,116	6	2	..	79	217,667	1,339	579	510	891	0·69	1·04	0·86	10·73	44·47
16	Broach	6	2	..	403	226,930	3	2	..	8	70,448	203	55	38	93	0·39	0·24	0·31	1·98	45·81
17	Kaira	5	2	..	577	804,809	5	2	..	57	151,192	666	149	132	282	0·35	0·32	0·34	9·87	42·34
18	Panch Mahals	5	2	..	672	256,479	3	1	..	7	20,344	61	16	13	29	0·14	0·08	0·11	1·04	47·54
19	Ahmedabad	7	4	1	807	806,324	2	3	1	30	387,117	333	78	60	138	0·17	0·15	0·16	3·58	41·74
Kánara. 20	Karáchi	13	1	..	712	478,686	..	..	..	..	..	..	..	..	..	..	..	..	..	..
21	Hyderabad	13	1	..	1,104	734,054	..	..	..	..	..	..	..	..	..	..	..	..	..	..
22	Thar and Párkar	7	1	..	72	203,544	..	..	..	..	..	..	..	..	..	..	..	..	..	..
23	Shikárpur	12	1	..	1,276	693,666	..	..	..	..	..	..	..	..	..	..	..	..	..	..
24	Upper Sind Frontier	3	1	..	142	134,161	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Total ..	223	55	7	24,536	16,454,414	131	37	6	3,199	4,839,007	79,463	19,857	18,097	37,954	2·34	2·27	2·31	12·94	47·76

[1] In the Census Report the total number of villages and towns for the Presidency are respectively shown as 24,471 and 167=24,638, but for the registration purposes 55 towns and 7 cantonments only have been selected and the rest (24,526) are considered as villages.

In the Presidency out of the 37,954 deaths registered during the year, 19,857 occurred among males and 18,097 among females; so for every 100 deaths among males there were 91 deaths among females. The ratio of males dying to males living was 2·34 and of females dying to females living 2·27. Last year they were 0·50 and 0·46 respectively. The deaths among females exceeded those among males in the Kolába, Surat, Belgaum, Kánara and Ratnágiri Districts; whilst in the remaining 14 affected districts the reverse was the case.

Cholera in the Presidency generally.

Taking the mortality by districts it will be seen that the highest number of deaths 10,914 = 8·82 per 1,000 of population took place in Khándesh District, whilst the highest death-rate occurred in the Ahmednagar District as there were 7,368 deaths = 9·81 per 1,000. Next in order comes the Poona District where the deaths amounted to 5,279, and following it the Násik District where they were 4,193. In the Sholápur and Thána districts they were between 2,000 and 3,000. In the Kaládgi, Sátára districts, and in the city of Bombay between 1,000 and 2,000 deaths were recorded. In the remaining 10 districts they were under 1,000.

6. Out of the 285 registration circles into which the Presidency is divided (223 rural, 55 town and 7 cantonment circles) 174, namely,—131 rural, 37 town and 6 cantonment circles were affected with cholera.

Registration circles affected by cholera.

These deaths are distributed over 3,242 registration units, viz., 37 towns, 6 cantonments and 3,199 villages. Regarding these latter, it is as well to explain that although the Census Report shows that there are in the Presidency 167 towns each containing 5,000 inhabitants or more, yet in our tables only 55 towns have been selected as urban registration circles, the statistics of the remaining 112 towns are necessarily included in the rural circles to which they belong and are classed as villages. Out of the entire population of the Presidency (16,454,414) 4,839,007 persons, or 29·41 per cent. were living in the affected districts. Of these 37,954 or 7·8 per 1,000 died. Out of 24,536 inhabited villages in the affected districts, 3,199 or only 13 per cent. were affected with cholera.

7. The following statement shows in order of precedence the rural circles, 12 in all, in which the deaths from cholera exceeded 10 per 1,000 of population, and that the disease principally prevailed in 6 tálukas of the Ahmednagar District, in 3 of the Khándesh District, in 2 of the Poona District and in one of the Násik District:—

Mortality in rural circles

Number in Sequence.	Names of Tálukas or Rural Circles.	Name of District.	Population by Census of 1881.	Deaths from Cholera. Number.	Deaths from Cholera. Ratio per 1,000 of Population.
1	Jámner	Khándesh	83,535	1,490	17·84
2	Sávda	Do.	141,745	1,163	15·52
	Yával			672	
	Ráver			373	
3	Párner	Ahmednagar ...	73,701	1,098	14·91
4	Násik	Násik	67,904	879	12·95
5	Shrigonda	Ahmednagar ...	51,291	646	12·59
6	Sirúr	Poona	72,793	881	12·06
7	Erandol	Khándesh	90,872	1,073	11·81
8	Sangamner	Ahmednagar ...	59,561	662	11·11
9	Nagar	Do. ...	71,458	744	10·41
10	Junnar	Poona	91,900	952	10·36
11	Nevása	Ahmednagar ...	78,158	804	10·29
12	Shevgaon	Do. ...	87,113	883	10·14

The aggregate population living in the above-mentioned rural circles amounted to 970,031 persons, among whom 12,320 deaths (or nearly one-third of the total cholera mortality) were recorded; so that 1 death occurred among every 79 inhabitants of these tálukas. For the Presidency generally the death-rate among the rural registration circles amounted to 2·37 per 1,000.

Mortality in towns.

8. The following table shows the mortality from cholera in the 37 towns and 6 cantonments that were affected and the death-rate in each as compared with the mean death-rate of the Collectorate in which it is situated :—

District.	Recorded Death-rate from Cholera of District in 1883.	Town and Cantonment Circles.	Recorded Death-rate from Cholera in 1883.
Khándesh	8·82	Dhulia	7·43
		Nandurbár	5·71
		Chopda	14·79
		Nasirabad	10·45
Násik	5·36	Násik	17·76
		Yeola	0·86
		Devláli Cantonment	6·40
		Málegaon do.	0·79
Ahmednagar	9·81	Ahmednagar	4·41
		Sangamner	8·53
		Ahmednagar Cantonment	1·31
Poona	5·86	Poona City	1·90
		Junnar	5·88
		Poona Cantonment	0·30
		Kirkee do.	0·55
Sholápur	4·37	Sholápur	3·06
		Bársi	3·10
		Pandharpur	10·94
Sátára	1·14	Sátára	0·41
		Karád	1·48
		Wái	3·25

District.	Recorded Death-rate from Cholera of District in 1883.	Town and Cantonment Circles.	Recorded Death-rate from Cholera in 1883.
Belgaum	0·55	Gokák	0·19
		Athni	5·18
Kaládgi	1·58	Kaládgi	0·71
Kánara	...	Kumta	0·09
Kolába...	1·05	Alibág	5·80
		Mahád	3·67
Bombay City	1·31	Bombay City	1·31
Thána	2·53	Thána	0·41
		Kalyán	8·22
		Panvel	30·34
Surat	0·96	Surat	0·75
		Bulsár	3·93
Broach...	0·27	Broach	1·96
		Jambusar	0·09
Kaira	0·35	Kaira	4·82
		Nadiád	3·11
		Borsad	0·08
Panch Mahális	0·11	Dohad	1·45
Ahmedabad	0·16	Ahmedabad	0·46
		Gogha	0·14
		Viramgám	0·05
		Ahmedabad Cantonment	1·40

High mortality in towns.

9. The following towns suffered very severely from cholera :—

No. in Sequence.	Name of Town.	Name of District.	Population of Town.	Death-rate per 1,000.
1	Panvel	Thána	10,351	30·34
2	Násik	Násik	24,101	17·76
3	Chopda	Khándesh	13,932	14·79
4	Pandharpur	Sholápur	16,910	10·94
5	Nasirabad	Khándesh	10,243	10·45
6	Sangamner	Ahmednagar	8,796	8·53
7	Kalyán	Thána	12,910	8·22
8	Dhulia	Khándesh	18,449	7·43
9	Junnar	Poona	10,373	5·83
10	Alibág	Kolába	6,376	5·80
11	Nandurbár...	Khándesh	6,841	5·71
12	Athni	Belgaum	11,186	5·18
13	Kaira	Kaira	12,640	4·82
14	Nagar	Ahmednagar	32,903	4·41
15	Bulsár	Surat	13,229	3·93
16	Mahád	Kolába...	6,804	3·67
17	Wái	Sátára	11,676	3·25
18	Nadiád	Kaira	28,304	3·11
19	Bársi	Sholápur	16,126	3·10
20	Sholápur	Do.	59,890	3·06
21	Broach	Broach	37,281	1·96
22	Poona City	Poona	99,622	1·90
23	Karád	Sátára	10,778	1·48
24	Dohad	Panch Mahális	12,394	1·45
25	Bombay City	Bombay City	773,196	1·31

Civil Population in Cantonments.

10. There are 7 cantonments in the Presidency from which, as regards the civil population living in each, vital statistics are received, of which 6 were affected during the year 1883, viz :—

Deolali.	Kirkee.
Málegaon.	Ahmednagar.
Poona.	Ahmedabad.

The civil population of these cantonments amounted to 51,573 persons, among whom only 45 deaths took place; so that there was only one death from cholera among every 1,146 persons living on the affected area.

Mortality in villages.

11. During the year, out of the 24,536 villages in the Presidency 3,199 or 13·04 per cent. were affected by cholera. In Khándesh, in which district there are 2,679 villages, 764 or 28·52 per cent. were invaded. In Ahmednagar 623 out of 1,331 or 46·81 per cent. were attacked; whilst in the Poona District there were 471 out of 1,181 or 39·88 per cent., in Násik District there were 342 out of 1,629 or 20·99 per cent., and in the Sholápur District 270 out of 709 or 38·08 per cent. In the Sátára, Kaládgi and Thána districts the affected villages ranged between 100 and 200; and in the remaining 10 districts they were below 100.

12. I shall next proceed to trace the course of the epidemic in each district.

Khándesh.

13. There was no cholera in this district for the first four months of the year, but on the 1st of May it appeared in Bhortek, a small village of 177 inhabitants in the Páchora Táluka. On the same day it broke out in the Town of Dhulia, and day by day it spread rapidly to 82 villages of the 15 tálukas and to 4 towns of the district. In June it continued in all the circles previously affected and it appeared for the first time in 6 other tálukas. In July the whole area was affected and the disease in this month reached the maximum of the year. From August it began to decline and by the end of September it had almost disappeared, as it was present only in 11 villages of the 5 tálukas. No case was reported in October, but in November it reappeared in the Chálisgaon Táluka, and by the 15th of this month it disappeared from the district finally. The affected area included 22 tálukas, 4 towns and 764 out of 2,679 villages; the population living on the affected area amounted to 729,225, that of the district being 1,237,231; so that 58·94 per cent. of the total population lived in the area affected by cholera. The attacks and deaths for the district during the year were 24,064 and 10,914 respectively, the percentage of the latter to the former being 45·35; whilst of the population living on the affected area 3·3 per cent. were attacked and 1·5 per cent. died.

Násik.

14. This district was exempt till 15th March when cholera appeared in Nánegaon, a village in the Násik Táluka about 8 miles south-east of the town of Násik and within a mile of the Cantonment of Devláli. A week afterwards it visited two other villages, and by the 29th it reached the town of Násik. Dr. Parker, the Deputy Sanitary Commissioner, was requested to proceed to Násik as soon as the outbreak appeared formidable, and he submitted a voluminous report in November, from which I take the following extracts: —

"Prior to the invasion of Násik town by the outbreak under report, the disease appeared during March at 4 sites in Násik Táluka, at no other point in the Collectorate did cholera prevail since November 1882. The following table has reference to March only and gives in a degree the cholera condition of Násik Táluka for that month. The statement specifies opposite each of these primarily invaded factors dates of first and last attack, total attacks, deaths and population, the three last items being detailed by sex, and from it we also learn that the general district epidemic of 1883 had its commencement at the village of Nánegaon on the 15th March :—

Dates of 1st and last Case.	Násik Taluka. Name of invaded Sites.		Population.		Attacks.		Deaths.	
			Males.	Females.	Males.	Females.	Males.	Females.
15th to 17th March 1883...	Villages.	Nánegaon ...	299	290	...	2	...	...
22nd to 30th ,, ...		Behdgawhan ...	197	255	3	3	3	2
26th to 31st ,, ...		Jakhori	994	960	6	5	4	...
21st to 30th ,, ...	Distillery		41	7	3	4	...	2

"Nánegnon is as the crow flies 8 miles south-east of Násik, and within a mile of Devláli Cantonment. Beladgawhan is in the same direction but 2 miles nearer Násik, and Jakhori, east-south-east, is 9 miles from the point of interest. The Railway line is close to the first two, but the last-named is some distance off. "Cholera appears to have broken out on the 21st March at the distillery situated close to the right bank of the Nasardi river within a mile south of Násik and to the immediate west of the station road as it spans that Godávari affluent".

Mr. Parker reports the distillery building to be insufficiently ventilated and that the refuse water is discharged into a pit, which, when full, obstructs the drain outfall, the refuse water consequently overflows and the soil is polluted. The refuse water is supposed to be used for irrigating land, and some of it must find its way into the Nasardi river. "The berries were seen piled up on the borders and in the general vicinity of the drains and collected in the pit emitting a very offensive odour not unlike that of tanning. From their surface heaps oozed an objectionable fluid defiling the soil to a large extent. In fine the drainage system, altogether primitive, is *perse* a decided nuisance."

Eight persons were attacked of whom 2 died. In a third case the result is somewhat uncertain as the patient went to Bombay by rail whilst ill. Dr. Parker traced the disease at Násik from its commencement on the 29th March to its termination on the 10 August. During that period there were 783 persons attacked, 415 of whom died, the percentage of deaths to attacks being 52·23. The number of deaths represents a death-rate of 17·22 per 1,000 of population.

"The sources of drinking water-supply to the 793 attacked persons were thus distributed: Godávari river 558; Nasardi fountain 204; direct from the Nasardi river 5, and wells 26. The disease commenced on the 29th March. Two kunbies, father and son, aged respectively 33 and 14 years, while with 20 other persons engaged in working a sugar-cane press in a field to the immediate south of Násik were seized with cholera. They had been so occupied some days and had worked throughout the whole of the night before. On its appearance the rest of the gang dispersed, but as far as I have been able to ascertain no further attacks took place amongst them. The patients were conveyed to their residences where they expired the following day. In this abode resided 4 males (inclusive) and 4 females. No further attacks occurred in it. On the same date a Mussalman Police constable, aged 20 years, was admitted into the Civil Hospital suffering from cholera. He recovered: he had arrived at Násik 2 or 3 days previously from the distillery where he had been stationed for a week on guard duty with other Policemen. He states when leaving the distillery he felt quite well. During his few days at Násik prior to seizure he lodged at No. 233 near the Municipal stables, Aditwar. This house is one storied and sheltered 37 females and 36 males, inclusive. Three other cases occurred on the same premises during the course of the epidemic. "Such are the events of the 1st day. An attempt to carry on the thread case by case and day by day through a large populous Indian town would I fear from the almost impracticable magnitude of any such undertaking be well nigh impossible. Suffice it however to say that having commenced it assumed the epidemic form."

Dr. Parker gives the following statement classifying the houses in Násik town, and giving under each head the number invaded by cholera during the outbreak and the percentage this latter bears to its class total:—

Table A.				B.			C.	
1	2	3	4	5	6	7	8	9
Class of House.	Total in Town.	Total invaded.	Affected Percentage	Class.	546 Houses.	Percentage invaded by Floors.	546+46 +13=605	Percentage invaded by Floors.
Regular houses ...	3,745	546	14·58	Ground floor ...	248	45·42	248+46 +2=296	48·93
Temples	221	5	2·26	One story	274	50·18	274+9 =283	46·78
Mosques	99	4	4·04	Two stories ...	22	4·03	22+2 =24	3·97
Dharmsálas	50	13	26	Three stories ...	2	0·37	2	0·33
Grass huts	183	46	25·14					
Total ...	4,298	614	14·29					

He says:—"Glancing down the figures, in the last column the deduction which appears to me tenable is the nearer the ground or the lower in every respect the type of house and of perhaps its inhabitants the greater its susceptibility to cholera." This is in accord with previously recorded experience and appears to favour the view that the habitat of the poison is presumably in the soil although certain atmospheric conditions seem to be necessary before it can attain epidemicity. His description of some of the houses leaves no doubt that local conditions must have had very much to say to this outbreak of cholera. For example, he says:—"I have seen buffaloes, cows, ponies, and goats housed around the chowk (open space in centre of house) sharing such quarters with lodgers or servants. Its faulty drain is apt to and sometimes does become choked and then a nuisance arising from the combined accumulation of animal excreta, and house filthy water is very objectionable. In a certain chowkless cholera-smitten house, the ground floor was occupied by cattle, and more resembled the interior of a neglected pigsty than a place of human abode overhead cholera appeared. In another like instance a buffaloe and a cholera patient were lying side by side in the same compartment on the basement. Court-yards which give shelter to cattle were very filthy, besides quantities of fresh dung I noticed flat cowdung cakes, strewn about on the ground or adhering to the walls in the act of drying or dried and ready for fuel, were stored up in a corner. Besides this, heaps of rubbish were noticed, every thing giving one the idea of sanitary indifference on the part of householders. * * * * * Mr. Dwyer has of late accidently come on some ancient drains choked with consolidated sewage which probably had been so from time immemorial; doubtless in such an old town there are still many more latent.

* * * * I have seen a cholera patient in a ground floor house under the following conditions lying on the bare floor in an off room 10′ 7″×6′ 11″×7′ 2″, its only aperture of communication with the exterior being a narrow door-way leading into the body of the house, 10 other persons were congregated in that chamber closely surrounding the unfortunate subject, and not far from its door a charcoal fire to consume, I suppose, the superfluous oxygen. Its atmosphere can better be imagined than described. To me it was unbearable; I could multiply allied instances."

Dr. Parker says:—"No one appreciates more than I do the value of an opinion unsupported by facts regarding the origin of an outbreak of cholera, but should one be considered admissible from what I have written, mine would certainly in the case of Násik town lean to importation; but by what specific

channel I am unable to say. I would also incline to the belief that judging from the cholera condition of its surroundings the re-introduction at intervals of the disease was by no means improbable."

Regarding this, as I said to Government, "I cannot support Dr. Parker's view of the importation of the disease into Násik, and such theories should only be stated when supported by facts. It is much more likely that the disease originated from local filth causes, and the lesson to be learnt is that whenever filth is permitted to exist, cholera is likely to prevail under certain atmospheric conditions, and that cleanliness offers the best security against cholera and other diseases."

I warmly supported Dr. Parker's recommendations regarding a new water-supply, improved drainage and a better system of practical sanitation throughout the town. Among other measures taken during the prevalence of the cholera outbreak I notice that Dr. Parker says: "While very severe and almost limited to Náikwádipura, the inhabitants of that subsection and its environs were prohibited from drawing Godávari water opposite the Kekti gate, and were directed higher up where the river was seemingly more drinkable. A decline in the number of attacks on that area was at once most marked. The outbreak amongst poultry vendors encamped in diminutive grass huts at the Nasardi settlement completely disappeared on the removal of their abodes *en masse* some 200 yards in a south-west direction in the very teeth of the monsoon."

In April the disease spread rapidly from village to village and up to the end of the month 70 fresh villages in 9 tálukas were seized. The disease was felt very severely in the town of Násik, as at this time there was a Ramnowmi fair, and a large number of people had assembled there from the surrounding villages from Bombay and from other places. The outbreak was attributed by some to use of the impure water from the River Godávari for drinking purposes. The disease also appeared for the first time in the Cantonment of Deválí, 8 miles south-east of Násik in April: 14 persons died. During May, it prevailed over the larger half of the district, but in June began steadily to subside. In July, although it was still prevalent in all the tálukas and in the town of Násik, the type of the disease was not severe. In August it was present in 10 out of 16 registration circles of the district. In September it continued in 4 tálukas and in October in only one. It re-appeared in the town of Násik but only lasted for a few days, the last case having occurred on the 22nd October. The affected area included 12 tálukas, 2 towns, 2 cantonments and 342 out of 1,629 villages. The population of this area is 351,550, that of the district being 781,206; so that 45 per cent. of the total population were living on the affected area. The attacks and deaths for the entire collectorate during the year were 8,206 and 4,193 respectively, the percentage of the latter to the former being 51·09; whilst of the population living in the affected area 2·3 per cent. were attacked and 1·2 per cent died.

Ahmednagar.

15. The district of Ahmednagar was free from cholera for the first quarter of the year, but on the 9th April an outbreak was reported to have occurred in Jeurpatode, a village in the Kopergaon Táluka. Four days afterwards it attacked another village called Daitna Gunjal in the Párner Táluka within a distance of 8 miles from the town of Nagar. On the 16th and 19th it appeared in two villages respectively in the Ráhuri Táluka. By the end of this month it had spread to 8 villages of the 5 tálukas. In May it continued in all the previously affected and 5 fresh localities. In June it was present in every táluka of the district, and in July the mortality reached its maximum. In the town of Ahmednagar 129 deaths were reported during this month, but owing to the judicious measures which were adopted by the municipality the disease was arrested and died out by the end of the month. In August there was a sudden decrease all over the district, and in September it was present in only 6 tálukas, and 2 fatal cases were reported from the town of Sangamner. In October it lingered in 7 villages of 3 tálukas, and in November it appeared in Nimbgaondakos, a village in the Karjat Táluka, where the disease ceased finally on the 12th. The affected area included 11 tálukas, 2 towns, 1 cantonment and 623 out of 1,331 villages. The population of this area

is 519,677, that of the district being 751,228; so that 69·18 per cent. of the total population were living on the affected area. The attacks and deaths for the district during the year were 15,482 and 7,368 respectively, the percentage of the latter to the former being 47·59; whilst of the population living in the affected area 3 per cent. were attacked and 1·4 per cent died.

Poona.

16. At the close of 1882 cholera was present in the Bhimthadi Táluka of the Poona Zilla, and during the year under report it continued in the same locality from 1st to 9th January. A case took place on the 17th in the Civil Lines, Poona Cantonment, in the Haveli Táluka, the disease then subsided, and the district was free for the next two months, but it reappeared in April, and on the 6th of that month a fatal case took place in the Poona Cantonment Sadar Bázár in the person of a Párs woman who was attacked on the 5th with diarrhœa, which subsequently developed into cholera. The disease then continued to prevail in all circles except Kirkee Cantonment and Sirúr Táluka. The first case which occurred in the Purandhar Táluka was that of a resident of Haraspur who was said to have been attacked on his way to Jejuri. On the 29th a fatal case occurred in Poona City in the person of a pilgrim who had returned from the Jejuri fair only 3 or 4 days before his death. In May and June the number of affected circles was the same, but the type was very severe. From July the disease, though reported from all circles of the district, began gradually to decline. In August it ceased in the Poona Cantonment, and in September it disappeared from 4 other circles. In October and November the disease was reported from 3 circles only, and the last case took place in Nimbodi, a village in the Indápur Táluka, on the 21st November. The affected area included 8 tálukas, 2 towns, 2 cantonments, and 471 out of 1,181 villages. The population of this area was 612,330, that of the entire Collectorate being 900,621; so that 68 per cent. of the total population were living in the affected area. The attacks and deaths for the district during the year were 11,057 and 5,279 respectively, the percentage of deaths to attacks being 47·74; whilst of the population living in the affected area 1·8 per cent. were attacked and 0·86 per cent. died.

Sholápur.

17. Until 21st April there was no cholera in this district, but on this day it was reported to have broken out at 3 villages of the Málsiras Táluka, and soon after it spread to 9 other villages in the same táluka. It then attacked the neighbouring tálukas, and by the end of the month was present in 7 tálukas and in 1 town. In May it continued in a severer form in the circles previously affected. In June the disease somewhat decreased, but in July it increased in severity; it was present in 7 tálukas and 3 towns, and the maximum mortality was reached. In the town of Pandharpur alone there were 261 attacks and 173 deaths between the 12th and 31st July. This mortality took place during the time of the Ashadhi fair which was held during this month. The Deputy Sanitary Commissioner, Dr. Parker, attended the fair and gave me the earliest intimation of the outbreak. Government ordered the local authorities to use every endeavour to induce the pilgrims to disperse immediately. In August though the disease continued to prevail in all the affected circles, it began to decrease rapidly, and in September it ceased entirely in 4 circles. In October it remained in 5 villages of the 3 tálukas only. In November it was confined to two villages of one táluka, and the last case took place on the 8th December at Natepute, a village in the Málsiras Táluka. The affected area included 7 tálukas, 3 towns and 270 out of 709 villages. The population living on this area amounted to 346,216, that of the district being 582,487; so that 59·44 per cent. of the total population were living in the affected area. The attacks and deaths for the whole zilla were 5,753 and 2,544 respectively, and the percentage of deaths to attacks was 44·22; whilst of the population living on the affected area 1·7 per cent. were attacked and 0·7 per cent. died.

Sátára.

18. Cholera did not commence in the Sátára District till 22nd April when it first broke out in Singnápur, a village of the Mán Táluka. On the next day it appeared in 2 more villages, and within a week it spread to 4 other villages in the same táluka. It visited the town of Sátára on the 28th, but there was only one fatal case.

In May it ceased in 4 out of 7 affected villages in the Mán Táluka, but appeared afresh in one village in each of the Khánápur, Karád, Khatáo and Koregaon tálukas. The disease also broke out in the town of Karád but ceased in the town of Sátára. In June a few cases were reported from 7 circles, but in July and August it spread over the whole district. In September 27 fresh villages and 2 towns were affected and the disease showed a steady and gradual decrease. In October and November it ceased in 4 and 3 circles respectively, and on the 27th December the disease died out entirely, the last case having occurred on this day in Paid, a village in the Khánápur Táluka, which was the only place where cholera was present during the month. The affected area included 11 out of 12 tálukas, 3 towns and 149 out of 1,340 villages. The population of this area was 294,478, that of the entire zilla being 1,062,350; so that 27·72 per cent. of the total population lived on the affected area. The attacks and deaths for the entire collectorate were 2,748 and 1,209 respectively, and the percentage of deaths to attacks was 44; whilst of the population living on the affected area only 0·93 per cent. were attacked and 0·41 per cent. died.

Belgaum.

19. In the Belgaum Collectorate cholera was present in December 1882 and continued in January of the year under report. On the 1st January it was in a village of the Belgaum Táluka, and on the 2nd it appeared in a village in the Khánápur Táluka. On the 6th and 28th two other villages were affected in this táluka, and on the 31st the disease died out. There was no cholera in February or March, but on the last day of April it appeared in a village of the Athni Táluka. In May the disease increased considerably, and was reported from 4 tálukas. In June and July there was a decline, but in August an increase again took place. In September it was confined almost exclusively to 3 tálukas and to the town of Athni, and in October it was present in this town only. On the 1st November a case was reported from Daroor, a village in the Athni táluka, but this was the last case in this district during the year. The affected area included 6 out of 7 tálukas, 2 out of 3 towns and 54 out of 1,073 villages. The population living on this area was 99,099, that of the district being 864,014. There were 1,019 seizures, 479 of which proved fatal, the percentage of deaths to attacks was 47·01; and 11·47 of the total population lived on the affected area; whilst of the population living on the affected area 1·03 per cent. were attacked and 0·49 per cent. died.

Dhárwár.

20. In the Dhárwár Zilla cholera continued from the preceding year as it was present in Gadag Táluka on the last day of that year, and on 1st January 1883 it was reported from 2 villages of the same táluka. The type of the disease was very mild as it ceased in this táluka on the 25th January, but appeared in a village of the Kalghatgi Táluka on the 2nd May. It appeared in two villages of the Ron Táluka on the 15th and 23rd July respectively. The disease afterwards left this táluka on the 25th July, but appeared for the first time in three villages of the Ránibennur Táluka. It also continued in this táluka until the end of the year, the last case taking place in the village of Hadgargeri on the 31st December. The affected area included 4 out of 14 tálukas and in 9 out of 1,281 villages. The population of this area was 7,367, that of the entire district being 882,907; so that 0·84 per cent. of the total population lived on the affected area. The total attacks during the year were 49, of which 28 terminated fatally, the percentage of deaths to attacks being 57·14; whilst of the population living on the affected area 0·66 per cent. were attacked and 0·38 per cent. died.

Kaládgi.

21. Cholera did not break out in the Kaládgi Collectorate till the 30th April when it appeared in the Bijargi village of the Bijápur Táluka. In May it continued and attacked 18 other villages in the Indi and Shindgi tálukas. On the 12th of May it broke out in an alienated village of the Bágevádi Táluka. In June it prevailed in 3 tálukas; ceased in 1 and reappeared in 1. In July it still continued in the previously affected localities and also appeared in another táluka, but the mortality was less than in the preceding month. In August it was present in 5 tálukas and the chief town of Kaládgi, and the maximum mortality of the year was reached. In September there was a sudden fall, but in October it again increased somewhat. In November and December the disease was confined to 5

and 3 villages of 3 and 2 tálukas respectively, and the last case took place on the last day of the year in Hungund, the principal town in the Hungund Táluka. The affected area included 8 tálukas, 1 town, and 146 out of 1,140 villages in the district. The population of this area was 170,235, and for the entire zilla 638,493; so that 26·66 per cent. of the total population lived on the affected area. The attacks and deaths for the district during the year were 2,298 and 1,008 respectively, the percentage of deaths to attacks being 43·86; whilst of the population living on the affected area 1·35 per cent. were attacked and 0·59 per cent. died.

Kánara.

22. The District of Kánara was almost free during the year as only one fatal case was reported to have occurred in the vicinity of Manki near Kumta in the person of a woman travelling from Bellari. No particulars as to date of attack or death are given.

Ratnágiri.

23. Cholera did not appear in the Ratnágiri District till the 17th May when it broke out in a village in the Sangameshvar Táluka, and on the 26th visited another village in the same táluka. A woman died in a village of the Chiplún Táluka on the 31st of this month. In June the disease continued in the Chiplún Táluka and a woman was attacked on the 3rd in a village of the Sangameshvar Táluka, but recovered. In July and August cholera prevailed in Sangameshvar and Dápoli tálukas, but in September, October and November, was confined exclusively to the Dápoli Táluka. The disease died out on the 16th of November in Tadil, a village in this táluka. The affected area included 3 out of 8 tálukas and 15 out of 1,295 villages; the population of this area was 13,818, that for the district being 997,090; so that only 1·4 per cent. of the total population lived in the area affected by cholera. The attacks and deaths for the entire Collectorate during the year were 195 and 91 respectively, the percentage of deaths to attacks being 46·67; whilst of the population living in the affected areas 0·2 per cent. were attacked and 0·1 per cent. died.

Kolába.

24. During 1883 cholera first broke out in this district on the 4th May in the town of Pen, the head-quarters of the Pen Táluka, and a fortnight afterwards it spread to 3 other villages in the same táluka. On the 26th it appeared in the Nágothna petha where it lasted till the end of the month. In June it continued in these two places and appeared for the first time in the Mángaon Táluka. In July and August it spread to 5 and 7 circles respectively, and from September began to decline as it was reported from 3 circles only. In October the disease remained in the town and taluka of Alíbág, but disappeared on the 5th and 9th respectively. On the 30th October two fresh cases were reported from a village in the Roha Táluka, but both terminated in recovery on the next day. In November it reappeared in the same village of the Roha Táluka and attacked another on the 20th. In December it was present in two villages of the Roha Táluka until the last day of the year. The affected area included 6 tálukas, 2 towns, and 40 out of 973 villages. The population living on this area was 45,226, that for the district being 381,649; so that 11·8 per cent. of the total population lived on the affected area. The attacks and deaths for the district during the year were 679 and 400 respectively, the percentage of the latter to the former being 58·91; whilst of the population living on the affected area 1·5 per cent. were attacked and 0·9 per cent. died.

City and Island of Bombay.

25. In the city of Bombay, cholera died out on the 18th December 1882, but on the 2nd January of the year under report 2 cases occurred which proved fatal. In February one fatal case only was recorded on the 22nd, and on the 2nd March 2 persons were attacked, one of whom died. In April and May the disease increased considerably, but in June it declined. In July it began to augment, and from the last week of this month the disease was declared to be epidemic in the city. Surgeon D. C. Davidson, then acting as Health Officer, in his report for the 3rd quarter, says: "Previous to this outbreak measures were taken to combat the disease. Seven special medical officers were, through the forethought of the Acting Municipal Commissioner, appointed for the various wards of the city, and a

cholera hospital was later on established at Grant Road." Further on he says: "It is a remarkable fact that a very large number of the people attacked by cholera in every epidemic here are natives of Ratnágiri." In August the maximum mortality was reached. During September, October, and November, the disease declined rapidly and in December only 6 deaths were reported up to the 18th. From 19th to 23rd a sudden outbreak occurred. About this outbreak Dr. Davidson, in his report for the quarter ending 31st December, says: This outbreak was almost coincident with the bursting of the Vehár Water Main, which deprived Bombay of its larger source of supply of drinking water for 3 consecutive days, during which time many of the people that were attacked with cholera had obtained water from wells of more than doubtful purity." The last case took place on the 30th December. This outbreak attracted the attention of Government as will be seen from the following letter from the Secretary to Government in the General Department to the Municipal Commissioner, and it will show the watchful care that is kept over the public health by Government. I hope that the measures therein directed will prevent any delay in mending future breaks in the main pipes supplying Bombay with water :—

"No. 13 of 1884.

General Department.

Bombay Castle, 3rd January 1884.

To

E. C. K. OLLIVANT, Esq., C.S.,
Municipal Commissioner for the City of Bombay.

Sir,

During the week ending 18th December 1883 there were no fresh attacks from cholera in the City of Bombay and no deaths. During the week ending 25th idem there were sixteen attacks and ten deaths. This has attracted the attention of His Excellency the Governor in Council, and also of the Egyptian Government. The result is that Sir E. Baring has telegraphed, intimating that a renewal of quarantine in Egypt against Bombay is probable.

2. As soon as the fact that cholera had re-appeared became known to Government enquiries were instituted with a view of ascertaining if any cause could be found for the sudden outbreak; and it was then discovered that an important water main having been broken, many of the residents of Bombay were, for two or three days, unable to get their usual Vehar or Tulsi water-supply, and were compelled to use water obtained from sources some of which were possibly impure. In all probability, therefore, the sudden outbreak of cholera was attributable to this cause; and it thus becomes imperatively necessary for Government to be assured that breaks in the water mains are repaired *at once* at any cost.

3. I am therefore desired by His Excellency the Governor in Council to request that you will inform me to what extent the ordinary water-supply was interrupted and what measures were taken to supply water to portions of the city dependent on that supply; and further that whenever a break in the Vehar or Tulsi pipes occurs you will invariably furnish an immediate report to Government. This report should show :—

(1). The exact hour the break took place,

(2). The portion of the town affected thereby,

(3). The exact hour the news was communicated to you.

(4). The exact hour the break was mended and the water-supply continued.

I am further to inquire whether the Municipal Engineer possesses full powers, with or without your special orders, to take at once all necessary measures for the restoration of the interrupted supply.

4. Government will closely scrutinize your reports showing how soon broken mains are repaired, and are convinced that you will do all in your power to secure the greatest attention being paid to this most important matter.

I have the honour to be,
Sir,
Your most obedient Servant,

(Signed) JOHN NUGENT,
Secretary to Government."

The following table shows the cholera mortality by months as far back as from 1848 and the 35 years' mean is compared with that of the year under report:—

Table showing Cholera Mortality by Months, and the Means for a period of 35 years.

Years.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.	Years.
1848	..	13	7	17	10	9	6	2	2	..	5	..	69	1848
1849	..	..	1	4	..	..	..	121	630	369	260	692	2,138	1849
1850	..	141	68	369	697	296	259	324	246	143	71	52	2,997	1850
1851	..	1,879	905	1,013	691	323	339	73	57	35	19	20	297	5,485	1851
1852	..	408	91	160	273	149	155	105	65	19	10	6	78	1,520	1852
1853	..	22	22	8	5	16	9	6	6	6	250	571	240	1,148	1853
1854	..	214	259	372	728	520	650	337	69	14	11	9	9	2,567	1854
1855	..	69	22	72	262	586	275	162	92	74	46	21	20	1,645	1855
1856	..	104	262	241	256	260	197	89	22	10	28	40	142	1,546	1856
1857	..	429	145	306	366	246	393	137	96	32	31	19	13	2,181	1857
1858	..	19	9	6	5	12	11	7	8	11	6	7	7	115	1858
1859	..	9	10	9	7	69	243	329	170	41	85	131	282	1,585	1859
1860	..	289	262	396	221	163	107	69	128	51	47	29	9	1,961	1860
1861	..	11	15	5	4	13	18	13	10	11	54	35	466	645	1861
1862	..	631	240	370	266	367	235	117	93	161	272	201	369	3,170	1862
1863	..	289	50	89	141	155	161	472	240	178	181	170	339	2,599	1863
1864	..	622	401	302	669	807	395	211	251	229	86	137	431	4,847	1864
1865	..	363	540	572	356	674	598	193	62	31	34	22	11	3,487	1865
1866	..	13	18	15	18	21	15	27	43	65	49	31	37	352	1866
1867	..	11	23	12	26	6	9	5	5	7	6	4	..	115	1867
1868	..	1	..	..	3	3	4	6	1	40	60	53	101	277	1868
1869	..	152	93	97	91	82	41	54	47	80	26	9	2	754	1869
1870	..	6	3	2	5	7	13	4	79	76	41	64	93	396	1870
1871	..	68	41	37	34	15	10	3	11	13	59	8	4	303	1871
1872	..	7	2	4	7	6	7	86	54	33	11	3	11	190	1872
1873	..	24	13	17	12	5	5	1	1	2	2	2	2	92	1873
1874	..	1	..	2	3	7	7	..	1	2	2	..	..	19	1874
1875	..	1	1	..	31	7	132	270	168	45	58	23	23	824	1875
1876	..	1	..	2	4	5	9	119	141	64	37	6	..	374	1876
1877	..	1	61	111	185	537	704	495	337	169	49	21	54	2,630	1877
1878	..	35	169	224	128	187	99	156	156	47	50	40	25	1,316	1878
1879	..	27	10	13	4	20	14	33	74	64	41	10	4	325	1879
1880	..	8	6	3	2	4	2	1	1	1	1	1	1	32	1880
1881	..	..	..	2	1	2	85	111	73	48	23	9	90	539	1881
1882	..	80	23	17	5	1	..	12	12	8	2	..	1	160	1882
Means for 35 years.		186	119	132	161	188	160	117	87	69	58	56	115	1,391	Means for 35 years
1883	..	2	1	1	15	84	54	254	439	162	24	4	37	1,014	1883.

Thána.

26. There was no cholera in the Thána District till 20th April, when it made its appearance in a village of the Bhiwndi Táluka, and a week afterwards it reached the town of Kalyán. The disease was stated to have been introduced by a pilgrim arriving in Kalyán from Násik. On the 30th a village in each of the Murbád, Panvel, and Karjat tálukás was affected, 3 men and 2 women were found dead while travelling in the vicinity of 2 villages in the Sháhápur Táluka on the road. These persons were said to have come from Násik, but the dates of attacks and deaths were not known. On the 1st May it appeared in the town of Kurla in the Salsette Táluka. Dr. Clarkson, the Deputy Sanitary Commissioner, Konkan Registration District, was directed to visit the place, and his able and carefully written report is as follows:—

"The municipal district is about 3 miles long. The land generally is flat with marshy land and creeks on the south-east and west. The flatness of the country is diversified by rocky elevations, and on these the greater part of the houses and chawls are built. The population is 9,743, living in 769 houses (each chawl is counted as a house without reference to the number of rooms it contains).

"The district is divided into 5 wards as follows:—(*a*) Bhuttees ward including Dhurrumsey Mill; (*b*) Thakia or station ward; (*c*) New Mill ward; (*d*) Old Kurla ward including Hall village; (*e*) Old Kurla bázár.

"(*a*). The Bhuttees ward is to the south of the railway station, and to the east of the railway line. This ward includes the large Dhurrumsey Mill and its chawl, &c., which are built on the flat ground. The rest of the houses are built on sloping ground. A large number are on the western slope of a hill and a number of salt pans, some of which are disused, the stench from them being most offensive I am told. They were full of water when I was there and I did not detect any odour, but Mr. Wilkinson says that at night time the smell is very bad. On the south of this ward is the causeway and marshy land and to the east, but included in the same ward, is the quarter inhabited by the lime-burners, whose houses are crowded together on a small hill.

"(*b*). The Thakia ward is to the north of the railway station and has the creek on its west and southern sides, to the east is the railway road, and it is

divided on the north by some fields from the New Mill ward. The main road runs through the ward.

"(c). The New Mill ward is built on pretty level ground. It contains the Wadia Mill with its chawls. It is also built on either side of the main road and further north, also on the road is the old Kurla (*d & e*) Bázár and to the east is the Old Kurla ward including the Hall village, which latter is built on ground not very much raised above the creek.

"The cholera has been confined to the Bhuttees and Thakia wards. Up to the 23rd May 109 cases with 57 deaths have occurred.

"The houses as a rule have very small plinths, are dark, ill ventilated, and overcrowded. The Mill chawls are well built and the place kept tolerably clean, but a great many of the other chawls are not at all well built.

"There is no drainage to speak of. Some of the arrangements are very bad. Behind one chawl in the Thakia ward each room has a hollow scooped out in the ground and this is filled with a dirty black stagnant fluid. As regards the other houses the bathing water sinks in near the bathing stone. The slop water from wells also cannot run off freely. Surface cleaning also is not at all well attended to. The quarters inhabited by Chámbárs in the Thakia ward are very bad in this respect. There are 45 wells of drinking water; of these I saw 5*, which contained a little water, the others were dry. The people are almost entirely dependent on Vehar water. In the Bhuttees ward all the wells are dry and the people go to a houd belonging to the Dhurrumsey Mill, which is filled with Vehar water; those coming from a long distance do not however get sufficient. The houd is very well built. There is a well in the station compound, but only the railway employés are allowed to use it. The Thakia ward is as badly off as the Bhuttees ward. They also use Vehar water which is turned into a deep well, which must receive soakage from surrounding dwellings. This way of distributing Vehar water is an extremely bad one I think. The low castes, such as the Chámbárs, not being allowed to draw from the well, have to wait until some one assists them and they fare very badly. In the New Mill ward there are two wells, one of which is pretty full. The mill however supplies Vehar water to its work people whilst on the premises I believe. In the other wards the people go to the well at Nawa Pada or to the fountain in Mr. Wadia's compound, the greatest number to the latter. The supply however is limited.

1. Station well.
2. Well near Police lines.
3. Do. Wadia Mill.
4. Do. Tank.
5. Nawa Pada well.

"I understand that in the early part of the month the Vehar water was very sparingly supplied, and I am of opinion that the cholera was due principally to the insufficiency of the water, aided no doubt by the general uncleanliness and overcrowded state of the place. The first cases occurred amongst the Chámbárs who have great difficulty in getting water and whose surroundings are very dirty. They pay a man to draw water for them, but the supply is not regular. It was the practice to shut off the Vehar water from the Thakia ward well for two or three days at a time, the water in the well was soon consumed, and as the bottom was approached, the quality of the water gets very bad I am told.

"The recommendations for improvement are obvious, money however is required.

"(*a*). The first thing is to get a good water-supply, and a survey for this has been undertaken. The scheme was prepared by Mr. Wilkinson, and I trust that it will not fall through now he has gone away. Properly made small houds or stand-pipes with spring taps should be used; the plan of discharging the water into any old well should not be allowed.

"(*b*). Then the drainage should be seen to. Every chawl that is built should have a drain round it, and every house should have one leading from the bathing place. The horse and cattle stables should also be drained. As far as I can judge drainage for the greater part of Kurla would not be difficult.

"(*c*). No house or chawl or stable should be allowed to be built until the municipality have approved of the plans. The municipality can then see that houses are built in lines, or at least are not crowded together, and that chawls

have proper ventilation and light, and that one room is duly separated from another; also that proper bathing places and drains are made to them. The use of whitewash twice a year at least to the inside and outside of buildings might be beneficially enforced.

"(*d*). There are 120 latrines, 52 of which belong to the Dhurrumsey Mill and are cleaned by their own sweepers. The remaining 68 are cleaned by 5 bhangies. Those I saw seem very well attended to. The basket receptacles are in use which, especially for private latrines, I consider objectionable.

"(*e*). There are 14 sweepers including the 2 extra who have been entertained since the beginning of the outbreak. There are also two carts. They should be better supervised. Receptacles for cutchra should be put up in various parts, and the inhabitants made to keep the surroundings of their dwellings clean, taking the rubbish to the receptacle. With reference to the disused salt pans, if a nuisance is caused by them, the owner should be called upon to put a stop to it."

The following is a statement of houses, wells, &c., in the Kurla municipal districts :—

Items.	Bhattees including old Mill (Ward).	Thakia Station Ward.	New Mill Ward.	Old Kurla Ward including Hall.	Old Kurla Bázár.	Remarks.
Number of houses	199	159	107	233	71	
„ Population	3,086	2,062	1,187	1,804	1,004	
„ Wells...	8	5	11	8	13	
„ Latrines, public ...	...	16	...	...	...	
„ „ private ...	60	14	24	6	16	
„ Cow-sheds	18	19	...	95	17	
„ Grave yards... ...	1	2	...	1	2	
„ Place for deposit of cutchra.	1	1	1	1	...	
„ Place for deposit of filth.	...	...	...	...	...	Creek.

The disease suddenly spread to 7 tálukás and to the towns of Kalyán and Panvel, but especially in the latter. Here the disease first broke out among some cartmen who came to Panvel from Ahmednagar, and the outbreak was a very severe one, as it attained the enormously high rate of 30·34 per 1,000. In June it prevailed in 7 affected localities, ceased in 2 and appeared afresh in 2, but the type was somewhat mild. In July it again increased in severity. On the 27th a pilgrim returning from Pandharpur died in the town of Karjat. From August to November it decreased steadily and gradually. In December it continued in the affected táluka of Bassein but reappeared in Bhiwndi and Salsette tálukas. The last case occurred in Wandra, a village in the Salsette táluka, on the last day of the year. The affected area included 11 tálukas, 3 towns, and 170 out of 2,098 villages. The population of this area was 219,335, that for the entire collectorate being 908,548; so that 24·14 per cent. of the total population lived on the affected area. The attacks and deaths for the district were respectively 3,840 and 2,298, and the percentage of deaths to attacks was 59·84; whilst of the population living in the affected area 1·8 per cent. were attacked and 1·5 per cent. died.

Surat.

27. Surat Zilla was free from cholera during the greater portion of the first half of the year, but on the 22nd June it broke out in a village of the Bárdoli Táluka and lasted for four days. In July it disappeared from this village, but 6 other villages in the same táluka were affected, and it appeared afresh in a village of the Mándvi Táluka and in the town of Bulsár on the 1st and 11th respectively.

By the 24th, it reached Surat City and continued till the end of the month. In August it was present in 6 circles, but the mortality was more than double that in the preceding month. In September though the disease continued in 5 affected localities and appeared anew in 2, there was a general decrease. The maximum mortality for the district was returned during October from 7 circles, but in November and December it rapidly diminished, as it was reported from 6 and 2 circles repectively. It continued to exist till 19th December when the last case occurred in Chásá, a village in the Chikhli Táluka. The affected area included 8 tálukas, 2 towns and 79 out of 780 villages. The population of this area was 217,087, that for the entire district being 614,198; so that 35·34 per cent. of the total population lived on the affected area. The attacks and deaths for the district during the year were 1,329 and 591 respectively; and the percentage of the latter to the former was 44·47; whilst of the population living on the affected area 0·61. per cent. were attacked and 0·27 per cent. died.

Broach.

28. Cholera did not appear in this district until the 19th August, when the first case occurred in the town of Broach itself. The disease was confined almost exclusively to the lowest and poorest classes of the community. With one exception there were no deaths among the well-to-do classes. The disease continued till the end of September. There were also fresh outbreaks in the tálukas of Broach, Anklesvar and Hánsot. In October it continued to prevail in the town and táluka of Broach and ceased in two other tálukás, but a fatal case was reported from the town of Jambusar. In November it was confined to the town of Broach, but in December a fresh case, which proved fatal, occurred in Hánsot and continued to prevail in the town of Broach till the 11th December, when the disease died out finally. The affected area included 3 out of 6 tálukas, 2 towns and 8 out of 403 villages. The population of this area is 70,446, that of the entire collectorate being 326,930; so that 21·55 per cent. of the total population were living on the affected area. The attacks and deaths for the district during the year were 203 and 88 respectively, the percentage of the latter to the former being 43·35; whilst of the population living on the affected area 0·29 per cent. were attacked and 0·12 per cent. died.

Kaira.

29. This district was free from cholera till 26th July, but on this day it broke out in Toondel, a village in the Nadiád Táluka. Four days afterwards it visited the chief town of Kaira, and in August, it was present in 18 villages of the 6 tálukas and in the towns of Kaira and Nadiád. In the town of Dákor in the Thásra Táluka, the disease broke out on the 19th, and fears were entertained that it would perhaps be dangerous to allow the large gathering for the Punim festival to assemble. The fair was, however, held on the 16th September, and passed off without any outbreak. This was no doubt in great measure due to the prompt and energetic action taken by the local municipality at the suggestion of Dr. MacCartie, the Acting Deputy Sanitary Commissioner, Gujarát Registration District, who sent in an admirable report embodying his recommendations for keeping the town clean. In the month of September the disease prevailed slightly in the town of Dákor but disappeared from it on the 6th, that is, 10 days before the commencement of the festival. It then continued mildly in 8 circles, but in October only in 2. The last case occurred on the 7th October in the Gana village of the Á'nand Táluka. The affected area included 6 out of 7 tálukas, 3 out of 4 towns and 22 out of 577 villages. The population of this area is 131,732, that of the district being 804,800; so that 16·37 per cent. of the total population lived in the affected area. The attacks and deaths for the zilla were 666 and 282 respectively, the percentage of the latter to the former being 34·84; whilst of the population living on the affected area 0·5 per cent. were attacked and ·21 per cent. died.

Panch Mahála.

30. Cholera did not appear in this district till the 25th of September when it broke out in Rapanpura, a village in the Gogha Taluka. Next day it appeared in a village of the Kálol Táluka, and two other villages were subsequently attacked. In October it ceased in the Godhra Táluka, continued in the Kálol Táluka and appeared afresh in 2 villages of the Dohad Táluka and in the town of Dohad. The last case of the district was returned from Borkheda, a village in this táluka, on the

31st October. The affected area included 3 out of 5 tálukas, 1 out of 2 towns, and 7 out of 673 villages. The population of this area is 20,244, that of the district being 255,479; so that 7·92 per cent. of the total population lived on the affected area. The attacks and deaths for the district during the year were 81 and 28 respectively, the percentage of the latter to the former being 34·75; whilst of the population living on the affected area 0·4 per cent. were attacked and 0·14 per cent. died.

Ahmedabad.

31. On the 7th April cholera first broke out in a village of the Sánand Táluka and continued till the 28th when it subsided. In May a fatal case took place in the town of Ahmedabad, but the whole district was exempt for the next two months until the 11th August when it re-appeared in the city of Ahmedabad. Dr. MacCartie, the Acting Deputy Sanitary Commissioner, was ordered to visit the place. In his report he said: "Much cannot be said in praise of the city where the water-supply is so impure, and where the subsoil water is generally brackish and impure, except that the municipality appear to be thoroughly alive to the urgency of improved water-supply and sanitation generally, and it certainly is a matter of congratulation that the city now only possesses 29 deep well fœcal privies which unfortunately must remain owing to a verdict of the High Court unfavourable to the municipality. The night-soil depôts will soon possess sheds so as to allow a poudrette being made during the monsoon months. In fact at one of these depôts the supports for the shed are already in process of erection." Another fact he reported was that "the officers of the municipality complained to me of the nuisance arising from the burial of the jail night-soil during the dry months in the jail garden situated on the bank of the river near the Ellis Bridge, and therefore above the municipal water-works." The discontinuance of this practice has lately been ordered by Government. There were 56 attacks and 39 deaths during the month in the city.

On the 21st the disease appeared simultaneously in 17 villages, and 2 days after in 7 more villages of the Dhandhuka Táluka. Three other villages in the same táluka were attacked on ths 25th, 29th and 30th respectively. It also appeared but slightly in the towns of Gogha and Viramgám and in the Cantonment of Ahmedabad during the month. In September it continued to be active in 11 villages of the Dhandhuka Táluka until the 20th and in the town and Cantonment of Ahmedabad until the 23rd, having disappeared from Gogha and Viramgám towns. In October only one fatal case occurred in the town of Ahmedabad on the 6th, when the disease died out. The affected area included 2 out of 7 tálukás, 3 out of 4 towns, 1 cantonment, and 30 out of 857 villages. The population of this area is 207,117, that of the district being 856,324; so that 24·19 per cent. of the total population lived on the affected area. The attacks and deaths for the district during the year were 333 and 139 respectively, the percentage of the latter to the former being 41·74; whilst of the population living on the affected area 0·16 per cent. were attacked and 0·07 per cent. died.

No cholera in Sind.

32. It is worthy of especial note, that not a single case of cholera was reported from Sind during the year.

Attacks and deaths.

33. The table at page 2 shows the number of attacks and deaths and the percentages of deaths to attacks in each district. The mean percentage of deaths to attacks throughout the Presidency was 47·76 against 47·40 in 1882. In Násik, Dhárwár, Kolába, Bombay City and Thána the percentage is above the mean; in Ahmednagar, Poona and Belgaum it closely approximates to it; and in the remaining districts it is below.

Statement appended to cholera map.

34. The subjoined table is a statement appended to the cholera map which shows each district affected by cholera, the name and number of each circle, its population, the dates of first and last cases, the total cholera deaths, their ratio per 10,000 of population, the period of maximum intensity, the number of villages in each rural circle and the number of those affected and not affected by the disease:—

Statement appended to Cholera Map illustrating the Distribution, &c., of Cholera in the Bombay Presidency during the year 1883.

1	2	3	4	5	6	7	8	9		10	11	
District.	Number of Circles as shown in the Map.	Name of Circle.	Population.	Date of first Case of Cholera in the Circle during the year.	Date of Last Case of Cholera in the Circle during the year.	Total Deaths from Cholera in the Circle during the year.	Ratio per 10,000.	Period of Maximum Intensity of the Disease.		Number of Villages in each of the Rural Circle.	Number of them	
								From	To		Affected by Cholera.	Not affected by Cholera.
Thánáh	1	Dhulia .. R. C.	59,668	10th May 1883.	28thSeptember1883	629	72·35	June 1883.	June 1883.	152	37	115
	2	Amalner	86,998	7th	31st August ..	306	23·27	.. ..	July ..	225	51	169
	3	Párola		12th	28th	225	30·3	July ..	..		44	181
	4	Erandol	90,972	24th	19th September ..	1,072	113·08	July ..	..	108	80	113
	5	Pachora		4th	6th	229		.. ..	August ..		24	
	6	Bhadgaon	100,051	4th June ..	31st August ..	128	9·6	.. ..	.. ..	187	64	123
	7	Chálisgaon	56,031	18th May ..	19th November ..	187	21·68	.. ..	July ..	135	34	118
	8	Pimpalner		4th	30th August ..	854		30 May	June ..		24	
	9	Nizámpur	97,540	10th	29th July ..	144	5·6	.. ..	.. ..	238	15	223
	10	Nandurbár	56,021	22nd	12th August ..	156	27·86	.. ..	.. ..	136	24	112
	11	Shirpur	69,783	24th June ..	17th September ..	29	4·15	July ..	July ..	259	7	252
	12	Shahádá	64,392	17th May ..	14th August ..	220	31·77	May ..	June ..	151	34	117
	13	Yáwal	61,464	16th	30th	261	39·74	June ..	..	140	23	117
Khándesh ..	14	Shirpur	43,377	8th	31st	308	34·79	.. ..	..	99	43	56
	15	Chopda	43,908	23rd	13th	1,160	71·01	July ..	July ..	91	38	53
	16	Sávda		23rd June ..	23rd	1,302		.. ..	.. ..		40	
	17	Yáwal	141,745	23rd	31st	672	126·77	.. ..	.. ..	102	22	76
	18	Rávar		1st July ..	7th	373		.. ..	August ..		26	
	19	Bhusával		9th June ..	31st	659		.. ..	July ..		65	
	20	Edalabad	98,109	19th	22nd	716	94·21	.. ..	.. ..	138	30	108
	21	Nasirabad	98,283	11th May ..	31st	454	72·06	.. ..	.. ..	87	30	57
	22	Jámner	80,555	21st	31st	1,490	178·08	.. ..	.. ..	138	70	68
	23	Pachora .. T. C.	15,489	1st	30th June ..	137	74·98	May ..	May ..	..	..	..
	24	Nandurbár	6,061	22nd	30th August ..	39	57·06	July ..	July ..	..	..	..
	25	Chopda	15,532	17th	14th	206	147·96	June ..	June ..	..	..	..
	26	Nasirabad	10,249	26th	13th	107	104·46	July ..	July ..	..	..	..
Thánáh	27	Násik .. .. R. C.	67,910	10th March	27th September1883	879	129·45	May ..	May ..	135	69	67
	28	Sinnar	68,051	6th April	31st July ..	504	89·95	June ..	June ..	99	43	56
	29	Igatpuri	68,249	12th	30th August ..	638	97·87	July ..	July ..	139	39	100
	30	Dindori	73,290	5th	8th	435	69·17	May ..	May ..	126	31	95
	31	Trimbak	47,525	7th	31st	311	58·98	June ..	June ..	123	46	77
	32	Chándor	67,853	20th	2nd September ..	124	24·99	August ..	August ..	108	18	90
	33	Sinnargaon	25,587	14th May ..	24th July ..	94	32·98	June ..	June ..	117	8	109
		Yeola.										
Násik	34	Nándgaon	30,399	27th	8th August ..	167	35·09	July ..	July ..	68	19	49
	35	Malegaon	54,719	27th April ..	4th	399	36·09	May ..	..	144	15	129
	36	Satána	46,678	22nd	27th	174	20·83	.. ..	..	145	28	120
								June ..	June ..	187	33	154
	37	Kalvan	54,480	10th May ..	10th October ..	507	52·49	August ..	August ..			
	38	Peint	35,144	15th April ..	31st September ..	80	12·69	April ..	May ..	213	4	237
	39	Násik .. .. T. C.	24,125	25th March ..	23rd October ..	425	177·09	May ..	..	..	..	..
	40	Yeola	17,661	1st June ..	30th June ..	15	8·43	June ..	June ..	..	..	..
	41	Dorvláli .. .. Cl.	4,999	24th April ..	30th April ..	19	49·99	April ..	April ..	..	..	..
	42	Malegaon	2,790	9th May ..	18th May ..	2	7·94	May ..	May ..	..	..	..
Ahmednagar	43	Nagar .. .. R. C.	71,455	1st June ..	31st August ..	744	104·12	June ..	July ..	168	33	135
	44	Ankolia	60,800	1st May ..	30th September ..	290	50·35	May ..	..	136	28	108
	45	Jámkhed	69,000	4th June ..	23rd October ..	341	49·40	July ..	..	73	33	51
	46	Pársor	23,701	12th April ..	9th	1,038	149·12	May ..	..	112	68	44
	47	Shrigonda	51,291	2nd May ..	30th September ..	696	135·95	June ..	..	79	68	11
	48	Karjat	54,639	9th	17th November ..	366	67·05	.. ..	August ..	146	24	55
	49	Newása	79,158	1st	24th August ..	804	101·97	.. ..	July ..	131	87	44
	50	Kopergaon	60,759	23rd April ..	21st July ..	657	99·86	May ..	June ..	137	81	56
	51	Sangamner	59,551	21st	30th August ..	662	111·13	June ..	..	151	51	100
	52	Rahuri	63,280	16th	31st	308	48·67	.. ..	..	131	62	69
	53	Sherpun	47,113	20th	27th September ..	363	107·08	.. ..	July ..	180	79	101
	54	Ahmednagar .. T. C.	32,903	22nd June ..	13th August ..	145	44·07	July ..	..	..	..	..
	55	Sangamner	8,796	7th May ..	3rd October ..	75	85·27	May ..	..	..	..	..
	56	Ahmednagar .. Cl.	4,869	17th June ..	30th July ..	6	12·66	July ..	..	..	..	..
Poona ..	57	Junnar .. .. R. C.	91,898	29th April ..	13th September ..	903	169·39	May ..	June ..	169	73	96
	58	Sirúr	48,114	21st	21st November ..	205	42·62	June ..	August ..	84	29	55
	59	Khed	141,890	27th	30th September ..	429	67·99	May ..	June ..	244	69	175
	60	Sirur	71,790	2nd May ..	31st August ..	221	129·61	June ..	..	78	23	55
	61	Purandhar	77,676	26th April ..	30th October ..	650	60·62	.. ..	July ..	92	50	42
	62	Bhimthadi	110,479	1st January ..	14th November ..	460	41·66	July ..	August ..	139	42	97
	63	Velhe	51,241	19th	30th September ..	351	34·24	June ..	..	207	63	144
	64	Mával	63,383	25th April ..	9th	338	53·19	May ..	..	164	57	107
	65	Poona City .. T. C.	99,021	20th	30th	189	19·07	June ..	..	..	..	..
	66	Junnar	10,278	30th	14th November ..	61	59·33	.. ..	June ..	..	..	..
	67	Poona .. .. Cl.	30,139	6th	31st	9	2·98	August ..	August ..	..	..	..
	68	Kirkee	7,251	21st June ..	31st July ..	4	6·50	June ..	July ..	..	..	..
Sholápur	69	Sholápur .. .. R. C.	86,640	24th April ..	31st October ..	324	36·74	July ..	August ..	146	46	100
	70	Bársi	93,920	27th	30th September ..	205	21·44	.. ..	..	89	33	56
	71	Mádha	67,961	10th	24th	181	26·66	.. ..	July ..	123	52	71
	72	Karmála	61,548	25th	23rd	464	90·26	.. ..	August ..	84	21	63
	73	Pandharpur	65,303	26th	1st	131	32·69	.. ..	August ..	76	34	42
	74	Sángola	57,849	30th	22nd October ..	262	55·91	.. ..	May ..	69	29	40
	75	Mohóna	54,572	31st	9th December ..	238	30·74	May ..	..	..	..	..
	76	Sholápur .. T. C.	70,000	17th June ..	27th August ..	183	26·16	.. ..	..	..	..	..
	77	Bársi	16,176	27th April ..	4th	58	35·85	.. ..	..	..	..	..
	78	Pandharpur	16,910	12th July ..	31st	195	115·30	.. ..	..	..	..	..
Satára	79	Sátára .. .. R. C.	90,668	12th June ..	22nd October ..	81	8·91	August ..	August ..	147	17	130
	80	Jáwli	40,481	19th August ..	11th November ..	14	3·21	.. ..	September ..	246	6	240
	81	Wái	70,000	1st June ..	30th October ..	88	12·59	July ..	September ..	158	19	139
	82	Karád	120,147	20th May ..	31st August ..	212	16·21	August ..	September ..	208	51	157
	83	Patan	160,458	4th August ..	30th November ..	129	7·92	October ..	October ..	49	10	39
	84	Phaltan	79,704	19th June ..	30th August ..	162	20·32	July ..	July ..	43	13	30
	85	Khánapur	10,227	29th May ..	27th December ..	133	14·97	May ..	Mai ..	91	15	76
								August ..	September ..			

1	2	3	4	5	6	7	8	9		10	11	
Districts.	Number of Circles as shown in the Map.	Name of Circle.	Population.	Date of First Case of Cholera in the Circle during the year.	Date of last Case of Cholera in the Circle during the year.	Total Deaths from Cholera in the Circle during the year.	Ratio per 10,000.	Period of Maximum Intensity of the Disease.		Number of Villages in each of the Rural Circles.	Number in Decile	
								From	To	Affected by Cholera.	Not affected by Cholera.	
Hillsborough.	86	Khatliv .. .. R. C.	74,027	15th May 1882	14th November 1882	65	9·31	October 1882	October 1882	64	19	71
	87	Mán .. .. „	55,111	22nd April „	22nd „ „	141	27·06	April „	April „	73	11	67
	88	Koregaon .. .. „	81,187	9th May „	30th October „	113	17·92	October „	October „	74	14	67
	89	Pátan .. .. „	112,414	27th July „	25th November „	37	3·95	August „	August „	102	1	97
	90	Sátára .. .. T. C.	29,028	25th April „	25th August „	12	4·13	„ „	„ „	„	„	„
	91	Karád .. .. „	19,779	22nd May „	27th September „	16	14·93	May „	May „	„	„	„
	92	Wái .. .. „	11,676	25th July „	13th „ „	58	37·55	August „	August „	„	„	„
Belgaum.	93	Belgaum .. .. R. C.	35,790	1st January „	31st June „	63	8·79	June „	June „	130	1	99
	94	Sampgaon .. .. „	110,845	6th June „	19th „ „	9	0·45	„ „	„ „	130	1	99
	95	Hók or Khánápur .. „	79,304	2nd January „	31st January „	3	0·19	January „	January „	116	3	94
	96	Chikodi .. .. „	146,514	11th May „	30th September „	50	2·46	August „	August „	213	3	98
	97	Gokák .. .. „	97,737	30th „ „	14th „ „	100	17·09	June „	June „	118	18	87
	98	Athni .. .. „	94,775	30th April „	1st November „	120	30·95	May „	May „	88	34	72
	99	Gokák .. .. T. C.	20,397	12th August „	30th August „	2	1·94	August „	August „	„	„	„
	100	Athni .. .. „	11,126	6th June „	30th October „	58	51·95	October „	October „	„	„	„
Dharwár.	101	Gadag .. .. R. C.	58,322	1st January „	25th January „	1	1·06	January „	January „	90	2	97
	102	Kalghatgi .. .. „	53,709	3rd June „	30th May „	3	0·55	May „	May „	105	3	97
	103	Kop .. .. „	60,734	16th July „	25th July „	3	0·49	July „	July „	89	1	98
	104	Hámdenagir .. .. „	62,011	20th November „	13th December „	13	2·04	November „	December „	111	4	96
Kaládgi.	105	Indi .. .. R. C.	71,040	3rd May „	15th September „	428	60·09	August „	August „	121	16	87
	106	Muddebihál .. .. „	60,014	3rd September „	30th October „	104	15·99	October „	October „	140	2	98
	107	Bádámi .. .. „	72,800	16th May „	25th November „	199	26·61	August „	August „	241	1	99
	108	Bágevádi .. .. „	86,745	13th „ „	6th December „	30	3·46	September „ November „	November „	120	1	98
Kolába.	109	Bijápur .. .. „	74,986	30th April	30th October	149	23·86	May „	May „	92	21	77
	110	Bágalkot .. .. „	89,123	1st June „	31st December	58	6·51	August „	August „	152	18	88
	111	Bilkhed .. .. „	58,007	4th July „	19th July „	6	1·03	July „	July „	105	1	98
	112	Hungund .. .. „	98,932	19th October „	31st December „	12	1·20	November „	November „	100	1	98
	113	Kaládgi .. .. T. C.	7,238	1st August „	30th August „	1	1·12	August „	August „	„	„	„
Kánara.	114	Kumpta .. .. T. C.	10,029	December „	December „	1	0·94	December „	December „	„	„	„
Satára.	115	Sangameshvar .. R. C.	104,640	17th May „	14th August „	14	1·24	May „ July „	May „ July „	179	3	97
	116	Chiplún .. .. „	105,921	31st „ „	9th June „	5	0·49	June „	June „	218	1	99
	117	Dápoli .. .. „	147,612	27th July „	16th November „	79	5·11	August „	August „	247	11	95
Kolába.	118	Alibág .. .. R. C.	60,792	29th „ „	9th October „	82	11·75	„ „	„ „	171	4	97
	119	Pen .. .. „	74,509	13th May „	19th August „	67	7·84	June „	June „	139	1	99
	120	Poona Nágnáthna .. „		30th „ „	8th June „	2	14·25	„ „	„ „			
	121	Roha .. .. „	44,826	11th August „	31st December „	54	6·36	November „	November „	128	3	97
	122	Mhasla .. .. „	41,985	1st June „	31st December „	43	5·66	August „	August „	128	3	97
	123	Mahád .. .. „	105,567	13th July „	18th September „	39	3·65	„ „	„ „	246	12	95
	124	Sátára .. .. „	111,874	16th August „	30th „ „	37	10·03	September „	September „	„	„	„
	125	Mahád .. .. T. C.	6,994	26th July „	6th August „	2	28·74	July „	July „	„	„	„
Bombay City	126	Bombay City .. T. C.	773,196	1st January „	30th December „	1,014	13·11	August „	August „	„	„	„
Poona.	127	Dhárwár .. .. R. C.	220,227	7th June „	30th June „	11	1·26	June „	June „	220	1	99
	128	Mádhan .. .. „	77,360	10th October „	27th October „	4	0·62	October „	October „	128	1	99
	129	Vádu .. .. „	96,493	4th August „	25th September „	53	15·69	August „	September „	113	1	99
	130	Shikárpur .. .. „	107,738	30th „ „	12th August „	234	31·47	July „	July „	173	1	99
	131	Murbád .. .. „	63,934	30th „ „	30th July „	21	3·79	June „	June „	171	4	97
	132	Kalyán .. .. „	65,976	5th May „	3rd August „	44	6·74	July „	July „	182	1	99
Thána.	133	Panvel .. .. „	62,873	20th April „	31st December „	626	95·97	„ „	September „	194	1	99
	134	Bassein .. .. „	48,967	11th June „	15th „ „	76	11·91	October „	October „	91	17	84
	135	Mhasthi .. .. „	32,693	1st May „	31st December „	600	47·83	August „	August „	112	1	99
	136	Panvel .. .. „	60,830	30th April „	15th October „	400	44·04	July „	July „	218	13	94
	137	Karjat .. .. „	92,502	30th „ „	17th September „	331	30·13	May „	May „	208	2	98
	138	Thána .. .. T. C.	14,466	25th July „	6th August „	6	4·15	July „	July „	„	„	„
	139	Kalyán .. .. „	12,910	27th April „	31st June „	120	92·79	May „	May „	„	„	„
	140	Panvel .. .. „	19,251	12th May „	30th August „	874	363·52	„ „	„ „	„	„	„
Surat.	141	Olpád .. .. R. C.	62,049	1st August „	31st September „	1	0·45	August „	August „	120	2	98
	142	Mándvi .. .. „	50,310	1st July „	30th July „	1	0·39	July „	July „	141	1	99
	143	Chorásí .. .. „	44,764	12th August „	23rd August „	1	0·22	August „	August „	66	1	98
	144	Bárdoli .. .. „	76,103	21st May „	31st December „	201	13·77	„ „	„ „	139	1	99
	145	Jalálpor .. .. „	74,910	13th September „	30th „ „	30	12·97	November „	November „	81	14	85
	146	Chikhli .. .. „	60,147	13th October „	22nd December „	93	15·46	„ „	„ „	62	1	98
	147	Surátu .. .. „	67,473	30th September „	31st December „	71	10·52	„ „	„ „	94	15	86
	148	Párdi .. .. „	85,767	30th August „	31st December „	90	10·74	October „	October „	93	15	86
	149	Surat .. .. T. C.	110,941	17th August „	17th October „	97	8·74	„ „	„ „	„	„	„
	150	Bulsár .. .. „	72,323	15th „ „	24th October „	52	39·22	September „	September „	„	„	„
Broach.	151	Broach .. .. R. C.	75,230	29th September „	31st „ „	6	0·67	October „	October „	104	1	99
	152	Ankleswar .. .. „	63,054	23rd „ „	23rd September „	2	1·42	September „	September „	100	1	99
	153	Hánsot .. .. „		2nd „ „	8th December „	2		December „	December „			
	154	Broach .. .. T. C.	37,261	12th August „	31st „ „	73	19·22	September „	September „	„	„	„
	155	Jambusar .. .. „	11,478	4th October „	9th October „	1	0·87	October „	October „	„	„	„
Kaira.	156	Mahmudabad .. R. C.	78,230	30th August „	27th August „	3	0·38	August „	August „	99	1	98
	157	Nadiád .. .. „	128,302	30th July „	18th September „	39	2·91	„ „	„ „	97	2	98
	158	Sunsad .. .. „	121,264	24th August „	5th „ „	2	0·15	„ „	„ „	99	3	97
	159	Dákor .. .. „	104,116	1st June „	7th October „	14	1·27	September „	September „	74	1	98
	160	Thásra .. .. „	84,880	12th „ „	6th September „	21	2·65	August „	August „	97	1	98
	161	Mátar .. .. „	78,279	11th „ „	2nd October „	11	1·70	September „	September „	83	2	98
	162	Kaira .. .. T. C.	13,640	25th July „	6th September „	41	29·26	August „	August „	„	„	„
	163	Nadiád .. .. „	23,504	6th August „	„ „ „	63	21·03	„ „	„ „	„	„	„
	164	Petlád .. .. „	12,228	30th „ „	12th „ „	1	0·73	September „	September „	17	1	94
Panch Mahals.	165	Godhra .. .. R. C.	64,976	24th September „	25th „ „	1	0·13	„ „	„ „	177	1	99
	166	Dohad .. .. „	47,310	27th October „	31st October „	4	0·85	October „	October „	130	2	98
	167	Kálol .. .. „	42,230	24th September „	3rd „ „	3	1·42	„ „	„ „	66	1	98
	168	Dohad .. .. T. C.	12,304	12th October „	30th „ „	19	15·45	„ „	„ „	„	„	„
Ahmedabad.	169	Dhandhuka .. .. R. C.	136,107	21st August „	30th September „	73	5·36	August „	August „	141	22	115
	170	Sánand .. .. „	78,504	7th April „	28th April „	1	0·23	April „	April „	85	1	99
	171	Ahmedabad .. T. C.	124,787	11th May „	6th October „	92	4·65	August „	August „	„	„	„
	172	Gogha .. .. „	7,993	30th August „	31st August „	1	0·62	„ „	„ „	„	„	„
	173	Viramgám .. .. „	18,000	27th „ „	12th September „	1	0·83	„ „	„ „	„	„	„
	174	Ahmedabad .. Ca.	2,854	23rd „ „	1st „ „	4	14·01	„ „	„ „	„	„	„

Cholera map.

35. The map illustrates the distribution of, and mortality from, cholera in the different registration circles in which the disease prevailed. I have for easy reference embodied a statement showing in each district the area, population, density per square mile, number of registration circles and villages, deaths from different causes, birth and death ratios, and dates of the first and last cases of cholera. The map has been coloured in different shades of green according as a high or low death-rate obtained in the affected districts.

Instructions for the guidance of villagers when cholera appears.

36. By the desire of Government I have drawn up the following simple instructions for the guidance of villagers regarding measures to be taken with reference to outbreaks of cholera :—

"INSTRUCTIONS FOR THE GUIDANCE OF VILLAGERS REGARDING MEASURES TO BE TAKEN WITH REFERENCE TO OUTBREAKS OF CHOLERA.

Precautions necessary in anticipation of the appearance of Cholera.

1. The outbreak of cholera is often so sudden and virulent that all precautionary measures must be taken beforehand. Experience has shown that like many other diseases the extent of its diffusion is in no small degree dependent on local insanitary conditions, and it is therefore essential that every village should be preserved in a state of constant preparation to meet a danger which may come at any time. Personal cleanliness is a matter of much consequence as a preventive measure.

2. If an outbreak of cholera is reported in the neighbouring villages the pátil should at once, whilst the disease is at a distance, get the people to clean up the village thoroughly—

(*a.*) All cesspools, into which the water used in bathing is discharged, should be opened up, and be thoroughly cleaned out and kept clean. Especial care should be taken that the channels leading to these cesspools from the *moris* or *nánis* are not closed but exposed to the external air. If they are closed they should be at once opened and left open.

(*b.*) If there is no cesspool, but the people bathe on a stone outside the house the ground below this stone will be soddened and very unwholesome. This ground should be dug up and should be replaced by fresh and dry earth, and the people should be warned that during this time at all events it will be better to go outside the village to bathe at a distance from their houses.

(*c.*) If there are any pit-privies in the village large quantities of salt should be thrown down each and they should not be used. If there are privies on the ground the pátil should see that there is below each an iron receptacle large enough to hold the fœces, the urine, and ablution water. The ground below these privies is almost invariably soddened with foul water. Very often bámbu baskets are used. No bámbu baskets should be allowed and the ground below should be covered every day with fresh earth.

(*d.*) The wells from which drinking water is drawn should be very carefully looked to. Any leaves, grass, or other impurity floating on the surface should be removed. Especial care must be taken to see that there is no filth near the wells, and if there is it should be covered up with fresh earth for a depth of six inches. All boughs of trees overhanging the wells or tanks should be cut.

(*e.*) The pátil must visit every day the Mahár and Máng Wáda and see that these places are kept clean and that the well is clean and that the people have a sufficient supply of good water.

(*f.*) All prickly-pear near a village should be cut, dried, burnt and the ashes buried in a hole where it will make good manure for the fields.

(*g.*) The pátil should pay increased attention to make the people go outside the village to a selected site for natural purposes.

(*h.*) He should make the village Mahár go through the village every day and especially examine the sites of ruined houses and if there is any ordure in them the site should be cleaned and enclosed by a mud wall so as

to prevent access to it, and all night-soil found in the streets or other places inside the village should be cleaned up and removed.

(*i.*) The night-soil at the enclosure outside the village should not be thrown behind prickly-pear trees, &c., but it should be buried in a trench one foot deep and one foot wide and be daily covered with earth for a depth of at least six inches.

(*j.*) It would be well in all villages if such trenches were daily used by the villagers. Each person after using should kick a little earth over what he had passed. This was done at the camps during the famine and was found very successful. For women and children, who cannot go outside the village, an iron bucket should be provided into which a little dry earth should be thrown. It should be daily carried to the fields and the contents buried.

3. When cholera is reported to be prevalent in the neighbourhood the pátil should warn the villagers that a great measure of safety would be to boil all their drinking water, and after boiling it well for five minutes to put it to cool in a clean vessel before drinking. Boiling destroys in a great measure the hurtful impurities in water and is one of the greatest safeguards we have.

4. But if cholera has actually broken out in the village, filth must not be disturbed or dug up. The best thing to do, under these circumstances, is to cover it up with fresh earth for a depth of six inches and the pátil should advise the villagers to have their houses immediately lime-washed inside with hot lime-wash and it would be a good plan if each householder would burn inside each room in his house six ounces of sulphur in a pipkin. Whilst the sulphur is burning all persons must remain outside as the sulphur fumes would kill them if they stayed inside. All doors and windows and other openings should be closed whilst the sulphur is burning: after four hours they should be opened and be left open, so that the fresh air may be admitted.

5. The pátil should always obtain from the mámlatdár and keep in stock a sufficient quantity of medicine for diarrhœa as well as for cholera; and he should, if an outbreak of cholera is apprehended, give warning to the villagers that it is especially necessary that they should apply to him *at once* at any hour by day or by night for medicine if any member of their family is attacked with *looseness of the bowels*.

6. The disease can easily be checked at this stage, but if it is allowed to go on without taking medicine it may be fatal. Any person therefore who goes to the rear even once more often than customary should *immediately* ask the pátil to give him medicine. It is very dangerous to wait. As soon as he has obeyed the call of nature he should go *forthwith* without any delay to the pátil and get the medicine which will prevent the disease getting hold of him. If it is night he should go *at once*, and not wait till daylight. This is most *important*.

Measures to be adopted on the appearance of Cholera.

7. The pátil should warn the people to abstain from drinking spirits. The practice of drinking spirits is believed to be a certain promoter of the disease and they should not be taken on any account.

8. It will be well if a grass shed can be put up outside the village for the treatment of any wayfarers who may be attacked by cholera. They should not be allowed to enter the village but the pátil should arrange that such persons are provided with suitable food, water, and medicine.

9. When cholera appears in a village it is most important to remember that this disease evidently attaches itself to particular localities. The principle to be borne in mind therefore is that the particular locality in which cholera shows itself must be looked on as dangerous. If possible the house should be immediately abandoned. It would be a measure of safety to move any person attacked away to a shed or open place situated outside the village quite away from the place he was attacked in.

10. As plenty of fresh air greatly assists the chances of recovery, the friends and relatives should not crowd around the person attacked but only one or at the most two people should remain with him.

11. The patient should lie, if possible, on a cot and not on the ground. He should be fanned and one man should shampoo his legs and arms if he has cramps. Cold water which has been boiled may from time to time be given him to drink. He should be given the cholera medicine according to the directions, but if the surface of the body is quite cold, if the lips are blue, if the eyes appear to be glazed it is no good giving him medicine but he should be well shampooed and the surface of the body be rubbed well with the palms of the hands. He should, if he will take it, be given hot mutton broth at frequent intervals. If his caste will not allow him to eat this, he should be given hot arrowroot conjie. It is very important to have the doors and windows left wide open: never mind if he feels cold: fresh air is most important, and he can be covered with clothes; but at all hazards give him plenty of fresh air, and do not let more than two people be in the same room with him.

12. The following order is all important to remember. The particular poison of cholera is supposed to be contained in the stools passed by the patient. It is therefore *absolutely necessary* that the stools be received into an old chatty or other receptacle so that they should not be spilt on the ground or bedding, but *as soon as* they are passed they should be *at once* taken *outside the village*. A little straw and dammer should be placed over them, and *they should be burnt*, and the ashes should be buried, and the same action should be taken regarding the vomitted matter. It must not be expected that the stools will be solid fœcal matter. They will be more like rice conjie water, and you must not say it is only water and therefore throw it down anywhere. The stool, which is like rice conjie water, is the most dangerous of all, and you must obey the directions most implicitly. Particular care must be taken on no account to bury the stools or vomit near any well, nullah or tank, or to throw them out into the backyard or into a privy; but as *soon* as each stool is passed it should be removed outside the village. On no account should the vessel holding these stools be put down in the house or in the backyard with the intention of removing them an hour or two hence. Such a proceeding is very dangerous, for the *stools* when first passed are *not dangerous*, but they rapidly, after a very short interval, become most dangerous. The only safe course is to remove them as soon as they are passed. If the patient passes any of these stools in his bedding no matter what the value of the article may be it should be at once *burnt*.

13. If the patient dies the body should be at once burnt or buried in the clothes in which he died; they should not be taken off the body.

14. If a second case occurs in the same house all the inmates should be turned out, and after the recovery or death of the patient one pound of sulphur should be burnt in a pipkin in the room in which the patient was. Whilst the process of disinfection is going on the doors, windows and other openings should be closed and kept closed for four hours, after which time they should be opened. The floor should be dug up and the earth taken outside the village and be buried. The walls should be lime-washed and a portion of the tiles be removed from the roof, or if it is a mud roof an opening should be made in it so as to allow plenty of *light* and *air* to enter, and the inmates should not be allowed to re-enter the house for at least ten days.

15. If these simple instructions are carried out it is hoped that many lives will be saved, but much will depend on whether these instructions are carried out to the letter, and the people at times when there is no cholera should be warned that the surest preventive of cholera is to have clean air, clean food, clean water, clean houses, and clean persons."

SMALL-POX.

Small-pox, mortality by sexes.

37. During the year 1883 small-pox prevailed in an epidemic form more or less throughout the Presidency and 6,895 males and 6,509 females fell victims to it. The total deaths amounted to 13,404 against 1,630 in 1882, the decennial mean being 6,522. Small-pox thus caused 3·18 per cent. of the total mortality of the year.

Small-pox, deaths since 1872.

38. The number of deaths registered from this disease in each year since 1872 is as follows:—

Years.	Number of Deaths.	Years.	Number of Deaths.
1872	26,699	1878	4,475
1873	9,935	1879	1,156
1874	3,903	1880	940
1875	3,461	1881	539
1876	11,817	1882	1,630
1877	27,369	1883	13,404
Total for 6 years ...	83,184	Total for 6 years ...	22,144

The decrease in the second period of six years ending 1883 is very marked and the epidemic in 1883 is the most serious outbreak since 1877.

General remarks.

39. The number of recorded deaths from small-pox increased from 539 (the lowest number attained since registration commenced) in 1881 to 1,630 during 1882. In fact the epidemic of the year under report commenced in November 1882 when 201 deaths against 98 in the preceding month—October—were registered. It prevailed with increasing severity until March when it attained its maximum intensity, 2,814 deaths having been recorded in that month. It then commenced to decline, but the disease did not die out; on the contrary it showed signs of epidemicity at the close of the year as the deaths rose in December to 1,033 or 640 above the decennial mean of that month. The minimum mortality as a rule occurs in the month of October, but the setting in of the cold weather appears to favour the development of the poison, and it rapidly becomes more intense until March when it usually commences to abate.

Deaths by Divisions and Districts.

40. The following table shows the deaths during 1883 arranged according to Divisions and Districts :—

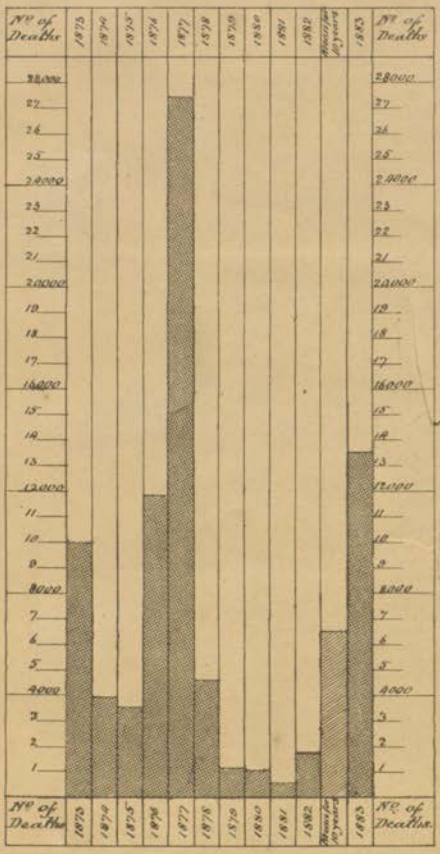
Divisions.	Number.	Districts.	Population according to Census of 1881.	Deaths from Small-pox in					
				Mean for 10 years from 1873 to 1882.	Ratio per 1,000 of Population.	1882.	Ratio per 1,000 of Population on Census of 1881.	1883.	Ratio per 1,000 of Population on Census of 1881.
Northern Deccan.	1	Khándesh	1,237,231	860	0·83	131	0·11	2,345	1·90
	2	Násik	781,206	466	0·63	32	0·04	523	0·67
	3	Ahmednagar	751,228	283	0·37	6	0·01	322	0·47
	4	Poona	900,621	339	0·37	506	0·56	1,225	1·36
	5	Sholápur	582,487	151	0·22	4	0·01	55	0·09
Southern Deccan.	6	Sátára	1,062,350	190	0·18	3	...	385	0·36
	7	Belgaum	864,014	350	0·39	47	0·05	440	0·52
	8	Dhárwár	882,907	515	0·53	13	0·01	493	0·56
	9	Kaládgi	638,493	179	0·23	7	0·01	645	1·02
Konkan.	10	Kánara	421,840	148	0·37	51	0·12	147	0·35
	11	Ratnágiri	997,090	376	0·37	8	0·01	291	0·29
	12	Kolába	381,649	143	0·40	90	0·24	343	0·90
	13	Bombay City	773,196	648	0·97	91	0·12	1,431	1·85
	14	Thána	908,548	419	0·48	328	0·36	1,646	1·82
Gujarát.	15	Surat	614,198	383	0·63	89	0·15	1,342	2·18
	16	Broach	326,936	147	0·43	...	...	149	0·43
	17	Kaira	804,800	332	0·41	5	0·01	13	0·02
	18	Panch Mahals	253,479	44	0·18	4	0·02	31	0·12
	19	Ahmedabad	856,324	249	0·30	23	0·03	68	0·08
Sind.	20	Karáchi	478,688	58	0·13	63	0·13	276	0·56
	21	Hyderabad	754,624	86	0·12	99	0·13	500	0·66
	22	Thar and Párkar ...	269,344	9	0·05	1	...	13	0·06
	23	Shikárpur	852,986	129	0·16	29	0·03	4	0·00
	24	Upper Sind Frontier ...	124,181	17	0·18	...	...	...	...

ABSTRACT.

Northern Deccan	4,252,773	2,099	0·50	679	0·16	4,502	1·06
Southern Deccan	3,447,764	1,244	0·33	70	0·02	1,963	0·57
Konkan	3,482,323	1,725	0·52	568	0·16	4,538	1·31
Gujarát	2,857,731	1,155	0·41	121	0·04	1,594	0·56
Sind	2,413,823	299	0·13	192	0·08	787	0·33
	16,454,414	6,522	0·40	1,630	0·10	13,404	0·81

Diagram

Showing the mortality from Smallpox in the Bombay Presidency for 1883 and from 1873 to 1882 inclusive



Ratio per 1000 of Population

Govt Photozinco. Office, Poona, 1884

B-1435

By Divisions.

By divisions the highest ratio (1·31) of deaths from small-pox per 1,000 of population took place in the Konkan against 0·16 in 1882 and 0·52 during the previous ten years. In the Northern Deccan Division the ratio was 1·06 per 1,000 against 0·16 in the previous year and the decennial mean of 0·50. In the Southern Deccan the ratio was 0·57 against 0·02 in 1882 and 0·33 in the previous ten years. In Gujarát the millesimal ratio was 0·56 against 0·04 in 1882 and a decennial mean of 0·41. In Sind it amounted to 0·33 against 0·08 in the previous year and 0·13 in the previous ten years.

By Districts.

In the districts the highest ratio per 1,000 of population (2·18) took place in Surat against 0·15 in the previous year and the decennial mean of 0·63. The next highest ratios occurred in Khándesh 1·90, Bombay City 1·85, Thána 1·82, Poona 1·36 and Kaládgi 1·02. The only district from which no deaths from small-pox were reported was the Upper Sind Frontier—a like immunity was observed in 1882—whilst only 4 deaths were recorded in the Shikárpur Collectorate and 13 in the Thar and Párkar District, a similar number being reported from Kaira. The death ratio from small-pox during 1883 was lower than the mean in Sholápur, Kánara, Kaira, Panch Maháls, Ahmedabad, and Shikárpur districts. (See diagram on opposite page.)

Death-rates in Urban and Rural Population.

41. Proceeding still further with the analysis of the localities in which these deaths from small-pox occurred as in the following table, we find that in the urban registration circles with a population of 2,105,756 persons the death-rate from small-pox was equal to a rate of 1·74 per 1,000 against a millesimal rate of 0·21 during the previous year, whilst in the rural circles with a population of 14,348,658 persons the rate was 0·68 per 1,000 against a rate of 0·08 in the previous year :—

Districts.	Urban and Rural.	Population.	1882.	1883.
Khándesh	Urban ...	49,465	0·14	2·98
	Rural ...	1,187,766	0·10	1·85
Násik	Urban ...	48,535	0·12	1·83
	Rural ...	732,671	0·04	0·59
Ahmednagar	Urban ...	46,288	...	2·96
	Rural ...	764,940	0·01	0·30
Poona	Urban ...	147,376	1·02	1·83
	Rural ...	753,245	0·47	1·27
Sholápur	Urban ...	92,926	...	0·50
	Rural ...	489,561	0·01	0·06
Sátára	Urban ...	51,482	0·02	0·56
	Rural ...	1,010,868	...	0·35
Belgaum	Urban ...	54,190	0·02	1·48
	Rural ...	809,824	0·06	0·44
Dhárwár	Urban ...	91,071	0·03	0·46
	Rural ...	791,836	0·01	0·57
Kaládgi	Urban ...	7,024	...	0·43
	Rural ...	631,469	0·01	1·02
Kánara	Urban ...	24,390	0·08	1·23
	Rural ...	397,450	0·12	0·29
Ratnágiri...	Urban ...	21,563	0·05	4·03
	Rural ...	975,527	0·01	0·93
Kolába	Urban ...	13,180	0·15	3·34
	Rural ...	368,469	0·24	0·81
Bombay City	Urban ...	773,196	0·12	1·85
	Rural ...	.....	...	...
Thána	Urban ...	37,717	0·37	2·09
	Rural ...	870,831	0·36	1·80
Surat	Urban ...	123,073	0·64	6·59
	Rural ...	491,125	0·02	1·08
Broach	Urban ...	48,760	...	2·07
	Rural ...	278,170	...	0·14
Kaira	Urban ...	67,614	...	0·15
	Rural ...	737,186	0·01	...
Panch Maháls	Urban ...	25,736	0·12	0·78
	Rural ...	229,743	...	0·05
Ahmedabad	Urban ...	171,390	...	0·06
	Rural ...	684,934	0·03	0·08
Karáchi	Urban ...	68,332	0·09	1·42
	Rural ...	410,356	0·14	0·43

Districts.	Urban and Rural.	Population.	1882.	1883.
Hyderabad	Urban ...	45,195	1·55	2·72
	Rural ...	709,429	0·04	0·53
Thar and Párkar	Urban ...	2,828	...	...
	Rural ...	200,516	0·01	0·06
Shikárpur	Urban ...	83,073	0·10	0·05
	Rural ...	769,913	0·03	...
Upper Sind Frontier	Urban ...	11,352	...	...
	Rural ...	112,829	...	...
Presidency ...	Urban ...	2,105,756	0·21	1·74
	Rural ...	14,348,658	0·08	0·68

Death-rates in Towns and Cantonments compared with Districts.

42. It becomes therefore most important to localize the disease still further and the following table shows the death-rate in each town circle. Nasirabad in Khándesh heads the list with the very high death-rate from small-pox of 9·08 per 1,000 of population, the district rate being 1·90. Surat comes next with a rate of 7·30, the district rate being also the high one of 2·18. Nandurbár in Khándesh stands 3rd with a rate of 7·16. Alibág in Kolába has the high rate of 5·49 against a district rate of 0·90. Panvel in Thána shows a rate of 4·45 against a district rate of 1·82. Vengurla in Ratnágiri shows a rate of 4·25 against a district rate of 0·99. The following towns have also high rate: Ahmednagar 3·98, Ratnágiri 3·89, Belgaum 3·20, Hyderabad 2·72, Broach 2·71, Poona 2·33, Thána 1·94, Bombay City 1·85, Karáchi 1·42, and Násik 1·41:—

Districts.	Death-rate of Districts in 1883.	Town Circles and Cantonment Circles.	Death-rate of Towns and Cantonments in 1883.
Khándesh	1·90	Dhulia	...
		Nandurbár	7·16
		Chopda	0·36
		Nasirabad	9·08
Násik	0·67	Násik	1·41
		Yeola	3·05
		Devláli Cantonment	...
		Málegaon do.	0·26
Ahmednagar	0·47	Ahmednagar	3·98
		Sangamner	0·59
		Ahmednagar Cantonment ...	0·22
Poona	1·36	Poona City	2·33
		Junnar	...
		Poona Cantonment	1·23
		Kirkee do	0·28
Sholápur	0·09	Sholápur	0·23
		Bársi	0·74
		Pandharpur	0·12
Sátára	0·36	Sátára	0·55
		Karád	0·09
		Wái	1·03
Belgaum	0·52	Belgaum	3·20
		Gokák	0·10
		Athni	...
		Belgaum Cantonment ...	0·32
Dhárwár	0·56	Dhárwár	0·66
		Hubli	0·08
		Gadag Betgeri	0·53
		Ránebennur	1·18
Kaládgi	1·02	Kaládgi	0·43
Kánara	0·35	Kárwár	0·15
		Kumta	2·63
Ratnágiri	0·99	Vengurla	4·25
		Ratnágiri	3·89
Kolába	0·90	Alibág	5·49
		Mahád	1·32
Bombay City	1·85	Bombay City	1·85

Districts.	Death-rate of Districts in 1883.	Town Circles and Cantonment Circles.	Death-rate of Towns and Cantonments in 1883.
Thána	1·82	Thána	1·94
		Kalyán	0·61
		Panvel	4·45
Surat	2·18	Surat	7·30
		Bulsár	0·68
Broach	0·43	Broach	2·71
		Jambusar	...
Kaira	0·02	Kaira	0·32
		Nadiád	...
		Borsad	...
		Kapadvanj	0·42
Panch Mahals	0·12	Godhra	1·05
		Dohad	0·48
Ahmedabad	0·08	Ahmedabad	0·01
		Gogha	...
		Viramgám	0·47
		Dholka	...
		Ahmedabad Cantonment ...	...
Karáchi	0·56	Karáchi	1·42
Hyderabad	0·66	Hyderabad	2·72
Thar and Párkar	0·06	Umarkot	...
		Shikárpur	0·09
Shikárpur	...	Sukkur	...
		Lárkhána	...
Upper Sind Frotier	...	Jacobabad T. C. and Cantonment.	...

Deaths by ages.

43. In the following table the deaths are shown by age and months, the latter being contrasted with the corresponding months of 1882 and with the previous 5 years. In 1883, 33·9 per cent. of these deaths occurred among infants under one year of age, whilst 51·9 per cent. took place among children over 1 and under 12, the remaining 14·2 per cent. being among persons over that age :—

		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total
Total deaths from small-pox in each month.	5 years' mean.	135	205	231	264	213	146	106	49	40	54	84	138	1,749
	1882	41	45	68	107	129	149	103	59	51	86	201	479	1,550
	1883	1,099	1,047	2,824	2,223	1,706	930	619	480	309	303	446	1,033	13,404
Deaths under 1 year.	5 years' mean.	43	39	116	92	66	26	18	10	9	8	9	26	565
	1882	13	7	14	25	25	19	23	17	15	21	21	96	311
	1883	342	623	993	780	420	208	213	166	128	103	139	319	4,544
Above 1 and under 12 years.	5 years' mean.	69	95	164	126	94	69	49	19	18	9	19	56	718
	1882	14	19	31	36	40	50	39	29	22	39	60	209	588
	1883	561	1,009	1,979	1,159	672	282	246	221	126	143	190	426	6,960
Above 12 years ..	5 years' mean.	42	40	51	46	53	46	41	20	13	17	35	53	456
	1882	12	19	23	46	63	71	56	41	37	57	107	180	712
	1883	196	325	849	284	185	130	135	71	60	59	118	258	1,960

Compulsory vaccination.

44. The above statements show that in towns especially there is large number of persons, chiefly young children, who are unprotected by vaccination against small-pox. I think a general feeling is gaining ground that the time is fast approaching when it will be desirable to make vaccination compulsory throughout the Presidency. If it were so there is no doubt that the death-rate would in epidemic seasons be considerably lower than it has hitherto been.

FEVER.

Fever, mortality by sexes.

45. During 1883, the deaths of 140,015 males and 126,726 females, or a total of 266,741 persons, were ascribed to fever. In 1882, 243,454 persons were said to have died from this cause. The increase therefore for the year under report as compared with 1882 amounted to 23,287 deaths, the mean for the previous ten years being 255,531.

Deaths since 1872.

46. The number of deaths registered from fever in each year since 1872 is as follows :—

Years.	No. of Deaths from Fever.	Years.	No. of Deaths from Fever.
1872	206,747	1878	357,376
1873	188,201	1879	286,526
1874	183,717	1880	246,779
1875	219,156	1881	272,403
1876	220,833	1882	243,454
1877	336,865	1883	266,741
Total for six years ...	1,355,519	Total for six years ...	1,673,279
Mean ...	225,920	Mean ...	278,880

The total deaths from fever in the six years ending 1883 is much above the aggregate deaths from this disease in the first six years.

Deaths by Divisions and Districts.

47. In the following table these deaths are shown by divisions and districts :—

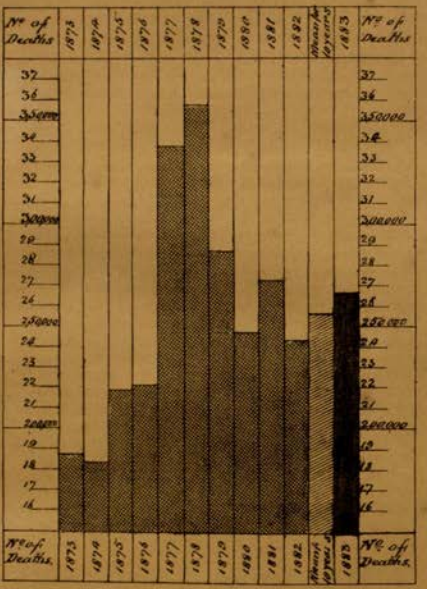
Divisions.	Number.	Districts.	Population according to Census of 1881.	Deaths from Fever in					
				Mean for 10 years from 1873 to 1882.	Ratio per 1,000 of Population.	1882.	Ratio per 1,000 of Population on Census of 1881.	1883.	Ratio per 1,000 of Population on Census of 1881.
Northern Deccan.	1	Khándesh	1,237,231	16,945	15·82	21,834	17·65	30,599	24·71
	2	Násik	781,206	13,166	17·70	15,137	19·38	16,486	21·12
	3	Ahmednagar ...	751,228	13,033	16·94	10,712	14·26	15,606	20·27
	4	Poona	900,621	13,238	14·61	11,420	12·68	14,480	16·08
	5	Sholápur	592,487	10,183	14·74	7,962	13·67	10,897	18·71
Southern Deccan.	6	Sátára	1,062,350	18,838	17·74	16,395	15·43	17,980	16·93
	7	Belgaum	864,014	14,953	16·19	9,332	11·50	9,565	11·07
	8	Dhárwár	882,907	17,667	18·27	11,448	12·97	10,340	11·71
	9	Kaládgi	638,493	13,444	17·22	8,112	12·71	8,318	13·03
Konkan.	10	Kánara	421,840	7,524	18·67	6,269	14·86	6,365	15·09
	11	Ratnágiri	907,090	9,612	9·47	8,353	8·38	8,398	8·42
	12	Kolába	537,429	5,979	11·15	5,458	14·20	5,651	14·81
	13	Bombay City ...	773,196	7,281	10·86	5,421	7·01	5,775	7·47
	14	Thána	908,548	14,456	16·79	16,308	17·95	17,485	19·24
Gujarát.	15	Surat	614,198	11,707	19·24	10,686	17·40	13,679	22·27
	16	Broach	326,930	8,111	23·46	5,619	17·19	7,560	23·12
	17	Kaira	804,800	17,528	22·27	14,614	18·15	16,170	20·09
	18	Panch Mahals ...	253,479	4,040	16·58	3,818	14·94	5,974	13·56
	19	Ahmedabad	856,324	17,635	21·12	16,171	18·88	15,885	18·55
Sind.	20	Karáchi	478,688	5,184	11·93	6,898	14·41	5,148	10·75
	21	Hyderabad	754,624	6,856	9·41	9,894	13·11	9,188	12·18
	22	Thar and Párkar ...	203,344	1,981	10·69	3,111	15·30	3,630	17·85
	23	Shikárpur	852,986	7,531	9·51	16,772	19·66	12,543	14·70
	24	Upper Sind Frontier ...	124,181	669	6·91	1,116	8·94	1,051	8·47
ABSTRACT.									
Northern Deccan			4,252,773	66,565	15·92	67,065	15·77	88,038	20·70
Southern Deccan... ...			3,447,764	64,892	17·39	45,887	13·31	46,203	13·40
Konkan			3,482,323	42,832	12·96	41,809	12·01	43,674	12·54
Gujarát			2,857,731	59,021	20·93	50,908	17·81	57,268	20·04
Sind			2,413,823	22,221	9·93	37,785	15·65	31,558	11·42
		Total ...	16,454,414	255,531	15·70	243,454	14·80	266,741	16·21

By divisions.

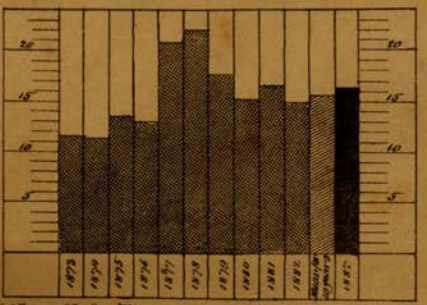
The high ratio 20·70 per 1,000 of population of deaths from fever took place in the Northern Deccan against 15·77 in 1882 and 15·92 during the previous ten years. The next highest 20·04 occurred in Gujarát against 17·81 in 1882, but it was lower than the decennial mean 20·93. In the Southern Deccan the ratio was 13·40 against 13·31 in 1882 and a decennial mean of 17·39. In the Konkan the rate was

Diagram

showing the mortality from Fever in the Bombay Presidency for 1883 and from 1873 to 1882 inclusive



Ratio per 1000 of Population.



Govt Photozincotype Office, Poona, 1884

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12·54 against 12·01 in 1882 and 12·96, the decennial mean. In Sind the millesimal rate was 11·42 against 15·65 in the previous year and 9·93, the mean of the previous ten years.

By Districts.

The Collectorate of Khándesh heads the list with a millesimal rate of 24·71 against 17·65 in 1882 and 15·82 in the previous ten years, and the following districts have exceptionally high rates: Broach 23·12, Surat 22·27, Násik 21·12, Ahmednagar 20·27, Kaira 20·09, Thána 19·24, Sholápur 18·71, and Ahmedabad 18·55. The minimum rate (7·47) was reported from Bombay City, and the following districts have comparatively low ratios: Ratnágiri 8·42, Upper Sind Frontier 8·47, Karáchi 10·75, Belgaum 11·07, and Dhárwár 11·71. (See diagram on opposite page.)

Remarks by Dr. Peacocke on fever in Sind.

48. In speaking of fevers in Sind Dr. Peacocke, the Acting Deputy Sanitary Commissioner, makes the following appropriate remarks, with which I concur:—

"(*a.*) In 1881, the total deaths from all causes were 31,914, of which 27,575 were from fevers.

In 1882	...	42,337	do.	37,785 do.
In 1883	...	36,582	do.	31,558 do.

"(*b.*) This enormous ratio of deaths from fevers is very remarkable, and the unfavourable pre-eminence of 1882 is worthy of notice. To the enquiries made at the larger towns and dispensaries I have been told that 1883 was much less unhealthy than 1882. This statement is we see fully justified by the returns, which, however unreliable in themselves as to accurate information, are yet useful in so far as they support mere statements.

"(*c.*) It must be gathered that fevers are the greatest cause of mortality in Sind, and a few words on its causes will not be without interest. The chief cause may no doubt be found in flooding of the country by the River Indus. The inundation of 1882 stands unrivalled. Vast tracts of land in certain districts were covered four months with the water which overflowed from the canals. These districts became very unhealthy and severe fevers resulting in a largely increased death-rate followed. The Shikárpur District was perhaps that most severely affected, and although the death-rate of 1883 does not compare favourably with that of 1881 (although the country was free from flooding in 1883). I believe the increase in the number of deaths in 1883 over 1881 must be in a great measure attributed to latent disease induced by the malarious influences of 1882. I have made these few observations more especially in connection with my statement of last year that the greatly increased mortality from fevers in the Shikárpur District in 1882 was due to the inundation and also in confirmation of the opinion expressed in my report No. 126 of the 18th February 1883 as to whether irrigation from canals was conducive of malarious fevers."

Death-rates in Urban and Rural Population.

49. The next table shows the deaths from fever arranged according to urban and rural registration districts, and it will be seen that whereas for the Presidency the death-rate from fever in the urban districts amounted to 12·44 per 1,000 of population against 12·36 in the previous year, that among the rural population amounted to 16·76 against 15·15 in 1882. This fact alone points to the pressing necessity for improved village sanitation:—

Districts.	Urban and Rural.	Population.	1882.	1883.
Khándesh	Urban ...	42,465	14·01	17·20
	Rural ...	1,187,706	17·80	25·02
Násik	Urban ...	48,535	20·21	17·86
	Rural ...	732,671	19·26	21·32
Ahmednagar	Urban ...	46,288	15·96	9·32
	Rural ...	704,940	14·15	21·53
Poona	Urban ...	147,376	8·27	9·84
	Rural ...	753,245	13·55	17·30
Sholápur	Urban ...	92,926	18·40	24·86
	Rural ...	489,561	12·76	17·54
Sátára	Urban ...	51,482	11·44	13·25
	Rural ...	1,010,863	15·64	17·11
Belgaum	Urban ...	54,190	7·40	7·49
	Rural ...	809,824	11·77	11·31

Districts.	Urban and Rural.	Population.	1882.	1883.
Dhárwár	Urban ...	91,071	9·84	7·89
	Rural ...	791,836	13·33	12·15
Kaládgi	Urban ...	7,024	8·40	5·41
	Rural ...	631,469	12·75	13·11
Kánara	Urban ...	24,390	10·05	9·51
	Rural ...	397,450	15·16	15·43
Ratnágiri	Urban ...	21,563	7·47	7·56
	Rural ...	975,527	8·40	8·44
Kolába	Urban ...	13,180	10·62	11·76
	Rural ...	368,469	14·43	14·92
Bombay City	Urban ...	773,196	7·01	7·47
	Rural ...	.....	...	...
Thána	Urban ...	37,717	11·08	8·75
	Rural ...	870,831	18·25	19·70
Surat	Urban ...	123,073	13·84	15·62
	Rural ...	491,125	18·29	23·94
Broach	Urban ...	48,760	10·25	15·63
	Rural ...	278,170	18·40	24·44
Kaira	Urban ...	67,614	22·01	25·10
	Rural ...	737,186	17·81	19·63
Panch Maháls	Urban ...	25,736	14·45	12·86
	Rural ...	229,743	15·00	15·86
Ahmedabad	Urban ...	171,390	24·80	22·76
	Rural ...	684,934	17·39	17·49
Karáchi	Urban ...	68,332	13·52	12·56
	Rural ...	410,356	14·56	10·45
Hyderabad	Urban ...	45,195	23·28	17·44
	Rural ...	709,429	12·46	11·84
Thar and Párkar	Urban ...	2,828	49·15	30·76
	Rural ...	200,516	14·82	17·67
Shikárpur	Urban ...	83,073	21·14	16·01
	Rural ...	769,913	19·50	14·56
Upper Sind Frontier	Urban ...	11,352	11·98	9·78
	Rural ...	112,829	8·63	8·33
Presidency ...	Urban ...	2,105,756	12·36	12·44
	Rural ...	14,348,658	15·15	16·76

The districts in which high rural death-rates from fever were found are—Khándesh 25·02 against 17·80 in 1882, Broach 24·44 against 18·40 in the previous year, Surat 23·94, Ahmednagar 21·53, and Násik 21·32.

Death-rates in Towns and Cantonments compared with Districts.

50. The next table shows the death-rate from fever in towns and cantonments as compared with the rates of the districts in which they are situated :—

Districts.	Death-rate from Fevers of Districts in 1883.	Town Circles and Cantonment Circles.	Deaths-rate from Fevers of Towns and Cantonments in 1883.
Khándesh	24·71	Dhulia	9·65
		Nandurbár	19·00
		Chopda	17·94
		Nasirabad	28·60
Násik	21·12	Násik	22·65
		Yeola	13·41
		Devláli Cantonment	5·05
		Málegaon do.	18·25
Ahmednagar	20·77	Ahmednagar	8·05
		Sangamner	14·89
		Ahmednagar Cantonment ...	7·63
Poona	16·08	Poona	10·90
		Junnar	8·48
		Poona Cantonment	7·50
		Kirkee do.	6·89
Sholápur	18·71	Sholápur	24·91
		Bársi	23·19
		Pandharpur	26·26
Sátára	16·93	Sátára	13·75
		Karád	14·10
		Wái	11·22

Districts.	Death-rate from Fevers of Districts in 1883.	Town Circles and Cantonment Circles.	Death-rate from Fevers of Towns and Cantonments in 1883.
Belgaum	11·07	Belgaum	6·36
		Gokák	8·54
		Athni	10·64
		Belgaum Cantonment ...	5·43
Dhárwár	11·71	Dhárwár	7·32
		Hubli	7·82
		Gadag Betgeri	8·12
		Ránebennur	9·31
Kaládgi	13·03	Kaládgi	5·41
Kánara	15·09	Kárwár	9·95
		Kumta	8·94
Ratnágiri	8·42	Vengurla	5·70
		Ratnágiri	8·88
Kolába	14·81	Alibág	10·66
		Mahád	12·79
Bombay City	7·47	Bombay City	7·47
Thána	19·24	Thána	12·31
		Kalyán	6·74
		Panvel	6·28
Surat	22·27	Surat	16·81
		Bulsár	5·82
Broach	23·12	Broach	16·39
		Jambusar	13·15
Kaira	20·09	Kaira	23·81
		Nadiád	29·82
		Borsad	18·49
		Kapadvanj	22·57
Panch Mahals	15·56	Godhra	10·12
		Dohad	15·81
Ahmedabad	18·55	Ahmedabad	24·25
		Gogha	15·57
		Viramgám	27·33
		Dholka	11·40
		Ahmedabad Cantonment ...	15·07
Karáchi	10·75	Karáchi	12·56
Hyderabad	12·18	Hyderabad	17·44
Thár and Párkar	17·85	Umarkot	30·76
		Shikárpur	14·10
Shikárpur	14·70	Sukkur	15·30
		Lárkhána	23·66
Upper Sind Frontier	8·47	Jacobabad	9·78

The highest death-rate from fever is reported to have occurred at Umarkot where it attained the very high rate of 30·76 per 1,000, and very near it comes Nadiád 29·82, the death-rate from fever in the Kaira District, in which this town is situated, being 20·09. This points to some local insanitary cause which produces these results. Nasirabad in the Khándesh Collectorate had also a high death-rate of 28·60, Viramgám in Ahmedabad 27·33, Pandharpur in Sholápur 26·26, Sholápur 24·91, Ahmedabad 24·25, Kaira 23·81, Lárkhána 23·66, Bársi 23·19, Násik 22·65, and Kapadvanj 22·57.

Deaths by months.

51. The table in the margin shows the monthly distribution of these deaths as compared with the mean and the corresponding months of 1882. During the first eight months of the year, and in December the deaths from fever were above the mean of the previous ten years, whilst in October and November they were below the number of the corresponding months in 1882 and the mean of the previous ten years.

Months.	Mean for 10 years.	1882.	1883.
January	22,296	21,983	23,513
February	18,682	20,236	21,114
March	19,779	21,995	22,569
April	18,885	18,745	22,385
May	18,841	19,088	20,512
June	17,433	15,557	20,700
July	19,991	17,314	23,106
August	22,672	19,534	23,703
September	22,616	19,654	20,735
October	23,550	21,648	19,144
November	26,256	25,257	23,787
December	24,530	22,531	25,153
	255,531	243,454	266,741

BOWEL COMPLAINTS.

Deaths from Bowel Complaints by sexes.

52. During 1883, bowel complaints caused the deaths of 19,394 males and of 15,898 females, or a total of 35,292 persons against 28,353 deaths in 1882 and a decennial mean of 33,150.

Deaths since 1872.

53. The number of deaths reported from bowel complaints in each year since 1872 is as follows :—

Years.	No. of Deaths from Bowel Complaints.	Years.	No. of Deaths from Bowel Complaints.
1872	33,664	1878 ...	41,165
1873	26,259	1879 ...	26,349
1874	26,990	1880 ...	24,452
1875	33,650	1881 ...	30,342
1876	33,683	1882 ...	28,353
1877	60,257	1883 ...	35,292
Total ...	214,503	Total ...	185,953

Deaths by Divisions and Districts.

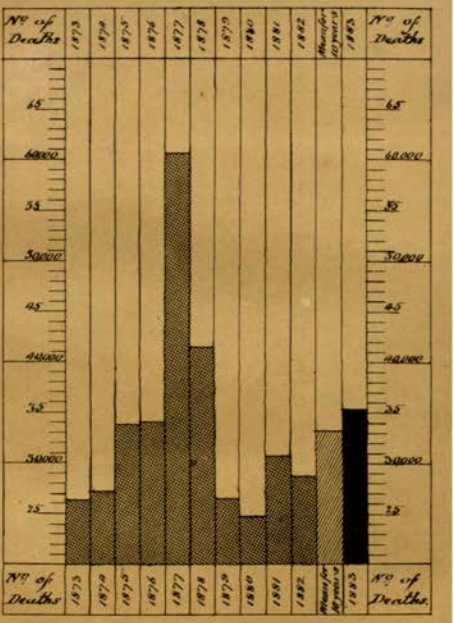
54. The following table shows these deaths arranged by divisions and districts :—

Division.	Number.	Districts.	Population according to Census of 1881.	Deaths from Bowel Complaints in					
				Mean for 10 years from 1873 to 1882.	Ratio per 1,000 of Population.	1882.	Ratio per 1,000 of Population on Census of 1881.	1883.	Ratio per 1,000 of Population on Census of 1881.
Northern Deccan.	1	Khándesh	1,237,231	3,367	3·15	4,206	3·40	6,362	5·14
	2	Násik	781,206	1,551	2·09	1,831	2·34	2,403	3·19
	3	Ahmednagar ...	751,228	1,953	2·54	1,368	1·82	2,477	3·30
	4	Poona	900,621	1,540	1·70	1,345	1·49	1,625	1·80
	5	Sholápur	582,487	1,684	2·44	906	1·55	1,327	2·28
Southern Deccan.	6	Sátára	1,062,350	2,782	2·62	1,814	1·71	1,960	1·84
	7	Belgaum	864,014	2,836	3·07	3,412	3·95	3,919	4·53
	8	Dhárwár	882,907	4,692	4·85	3,511	3·98	3,763	4·26
	9	Kaládgi	638,493	1,425	1·83	1,011	1·58	1,298	2·03
Konkan.	10	Kánara	421,840	1,168	2·90	751	1·78	799	1·89
	11	Ratnágiri	997,090	1,507	1·49	852	0·85	670	0·67
	12	Kolába	381,649	172	0·48	107	0·28	70	0·18
	13	Bombay City ...	773,196	2,167	3·23	1,586	2·05	1,769	2·29
	14	Thána	908,548	345	0·40	276	0·30	293	0·32
Gujarát.	15	Surat	614,198	1,401	2·30	1,291	2·10	1,833	2·98
	16	Broach	326,930	523	1·51	498	1·52	610	1·87
	17	Kaira	894,860	1,978	2·51	1,708	2·20	2,159	2·68
	18	Panch Mahális ...	255,479	318	1·30	100	0·39	94	0·37
	19	Ahmedabad ...	856,324	1,386	1·54	1,136	1·33	1,265	1·48
Sind.	20	Karáchi	478,688	115	0·26	267	0·56	191	0·40
	21	Hyderabad	754,824	75	0·10	79	0·10	98	0·13
	22	Thar and Párkar ...	203,344	23	1·13	8	0·04	8	0·04
	23	Shikárpur	852,886	201	0·25	200	0·23	181	0·21
	24	Upper Sind Frontier ...	124,181	29	0·30	30	0·24	28	0·23
ABSTRACT.									
Northern Deccan			4,252,773	10,095	2·41	9,656	2·27	14,284	3·36
Southern Deccan			3,447,764	11,735	3·14	9,748	2·83	10,940	3·17
Konkan			3,482,323	5,359	1·62	3,572	1·03	3,601	1·03
Gujárát			2,857,781	5,506	1·95	4,793	1·68	5,961	2·09
Sind			2,413,823	455	0·20	584	0·24	506	0·21
			16,454,414	33,150	2·04	28,353	1·72	35,292	2·14

The Northern Deccan Registration Division heads the list with the very high ratio of 3·36 per 1,000 against 2·27 in 1882 and 2·41, the decennial mean. Following it comes the Southern Deccan with a ratio of 3·17, and next to it is Gujarát 2·09, after which is the Konkan 1·03, and the least of all Sind 0·21, the

Diagram

Showing the mortality from Bowel complaints in the Bombay Presidency for 1883 & from 1873 to 1882 inclusive



Ratio per 1000 of Population

Govt. Photozincographic Office, Poona, 1884.

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rate in this Division being less than in 1882, 0·24, but slightly above the decennial mean 0·20. In the Presidency the rate was 2·14 per 1,000 against 1·72 in 1882 and 2·04, the decennial mean. (See diagram on opposite page.)

Death-rates in Urban and Rural Population.

55. The next table shows these deaths arranged by urban and rural registration circles. For the Presidency it is seen that the rates were nearly the same, viz., 2·22 in the urban and 2·13 in the rural circles collectively.:—

Districts.	Urban and Rural.	Population.	1882.	1883.
Khándesh ...	Urban ...	49,465	1·19	0·89
	Rural ...	1,187,766	3·49	5·32
Násik	Urban ...	48,535	3·34	4·43
	Rural ...	732,671	2·27	3·11
Ahmednagar ...	Urban ...	46,288	1·38	2·81
	Rural ...	704,940	1·85	3·33
Poona	Urban ...	147,376	1·91	1·82
	Rural ...	753,245	1·41	1·80
Sholápur ...	Urban ...	92,926	2·84	4·79
	Rural ...	489,561	1·31	1·80
Sátára	Urban ...	51,482	2·42	3·17
	Rural ...	1,010,863	1·67	1·78
Belgaum ...	Urban ...	54,190	2·95	4·80
	Rural ...	809,824	4·01	4·52
Dhárwár ...	Urban ...	91,071	5·27	4·53
	Rural ...	791,836	3·83	4·23
Kaládgi ...	Urban ...	7,024	5·41	5·69
	Rural ...	631,469	1·54	1·99
Kánara ...	Urban ...	24,390	1·56	0·94
	Rural ...	397,450	1·79	1·95
Ratnágiri ...	Urban ...	21,563	4·41	1·53
	Rural ...	975,527	0·77	0·65
Kolába ...	Urban ...	13,180	0·23	0·23
	Rural ...	368,469	0·28	0·18
Bombay City ...	Urban ...	773,196	2·05	2·29
	Rural ...	.....	...	...
Thána	Urban ...	37,717	0·16	0·11
	Rural ...	870,831	0·31	0·33
Surat	Urban ...	123,073	0·11	0·42
	Rural ...	491,125	2·60	3·62
Broach ...	Urban ...	48,760	4·02	5·64
	Rural ...	278,170	1·09	1·20
Kaira	Urban ...	67,614	1·12	1·17
	Rural ...	737,186	2·30	2·82
Panch Mahás ...	Urban ...	25,736	0·51	0·43
	Rural ...	229,743	0·37	0·36
Ahmedabad ...	Urban ...	171,390	1·54	1·60
	Rural ...	684,934	1·27	1·45
Karáchi ...	Urban ...	68,332	1·65	1·29
	Rural ...	410,856	0·37	0·25
Hyderabad ...	Urban ...	45,195	0·35	0·42
	Rural ...	709,429	0·09	0·11
Thar and Párkar ...	Urban ...	2,828	0·35	0·71
	Rural ...	200,516	0·03	0·03
Shikárpur ...	Urban ...	83,073	...	...
	Rural ...	769,913	0·19	0·18
Upper Sind Frontier ...	Urban ...	11,352	1·67	1·23
	Rural ...	112,829	0·10	0·12
Presidency ...	Urban ...	2,105,756	1·98	2·22
	Rural ...	14,348,658	1·69	2·13

The highest rural rate (5·32 per 1,000) occurred in Khándesh. The next highest in Belgaum District (4·52), and the following districts have also a high rural rate: Dhárwár 4·23, Surat 3·62, Ahmednagar 3·33, Kaira 2·82.

Death-rates from Bowel Complaints in Towns and Cantonments compared with Districts.

56. The following table shows the death-rates in town and cantonment circles from these diseases :—

Districts.	Death-rate from Bowel Complaints of District in 1883.	Town Circles and Cantonment Circles.	Death-rate from Bowel Complaints of Towns and Cantonments in 1883.
		Dhulia	0·98
Khándesh	5·14	Nandurbár	2·33
		Chopda	0·07
		Nasirabad	0·88
		Násik	5·35
Násik	3·19	Yeola	3·61
		Devláli Cantonment ...	1·68
		Málegaon do. ...	4·50
		Ahmednagar	3·56
Ahmednagar	3·30	Sangamner	0·34
		Ahmednagar Cantonment ...	2·18
		Poona	1·68
Poona	1·80	Junnar...	1·54
		Poona Cantonment ...	2·42
		Kirkee do. ...	1·52
		Sholápur	1·62
Sholápur	2·28	Bársi	2·54
		Pandharpur	18·15
		Sátára	3·96
Sátára	1·84	Karád	2·78
		Wái	1·63
		Belgaum	2·55
Belgaum	4·53	Gokák	9·41
		A'thni	7·96
		Belgaum Cantonment ...	1·56
		Dhárwár	2·06
Dhárwár	4·26	Hubli	6·16
		Gadag-Betgeri	5·41
		Ránebennur	3·82
Kaládgi	2·03	Kaládgi	5·69
Kánara	1·89	Kárwár	1·02
		Kumta...	0·84
Ratnágiri	0·67	Vengurla	1·79
		Ratnágiri	1·34
		Alibág...	...
Kolába	0·18	Mahád...	0·44
Bombay City	2·29	Bombay City	2·29
		Thána	...
Thána	0·32	Kalyán	0·07
		Panvel...	0·28
		Surat	0·35
Surat	2·98	Bulsár	1·06
		Broach...	0·91
Broach...	1·87	Jambusar	20·99
		Kaira	4·67
		Nadiád	0·07
Kaira	2·68	Borsad	0·25
		Kapadvanj	1·04
		Godhra	...
Panch Mahals	0·37	Dohad...	0·89
		Ahmedabad	0·66
		Gogha...	6·65
Ahmedabad	1·48	Viramgám	3·84
		Dholka	4·01
		Ahmedabad Cantonment ...	0·35
Karáchi	0·40	Karáchi	1·29
Hyderabad	0·13	Hyderabad	0·42
Thar and Párkar ...	0·04	Umarkot	0·71
		Shikárpur	0·05
Shikárpur	0·21	Sukkur	1·57
		Lárkhána	...
Upper Sind Frontier ...	0·23	Jacobabad	1·23

In the 4 districts of Khándesh, Kánara, Thána, and Surat the death-rates from bowel complaints are lower in the towns than in the Districts, but in the remaining Collectorates the urban rate is in excess. The extremely high rate of 20·99 per 1,000 is reported from the town of Jambusar in the Broach Collectorate. Pandharpur also had the very high rate of 18·15, whilst the following towns also had high rates: Gokák 9·41, Athni 7·96, Gogha 6·65, and Hubli 6·16.

Deaths by months.

57. The table in the margin shows the monthly distribution of these deaths as compared with the mean and the corresponding months of 1882. During each month of the year the deaths from bowel complaints were more than in 1882, but in January, February, September, October and November they were below the mean. The great rise in July and August will attract attention.

Months.	Mean for 10 years.	1882.	1883.
January	2,453	2,123	2,406
February	2,340	2,033	2,100
March	1,964	2,011	2,211
April	2,158	1,936	2,403
May	2,205	2,302	2,683
June	2,435	2,184	2,930
July	2,605	2,652	4,149
August	3,290	3,149	4,450
September	4,137	2,916	3,374
October	3,811	2,399	2,891
November	3,114	2,298	2,799
December	2,638	2,330	2,845
	33,150	28,353	35,292

INJURIES.

Deaths from injuries.

58. During 1883, 3,436 males and 2,542 females, or a total of 5,978 persons, met with violent deaths. The mortality from these causes is slightly in excess of that in 1882 when 5,913 deaths were recorded. Of the 5,978 deaths 2,713 were caused by drowning, 1,215 resulted from snake-bites, 355 from wounds, 179 by hanging, 130 by poisoning, 95 from attacks by wild beasts, and 1,291 from causes not specified.

Deaths since 1872.

59. The number of deaths registered from injuries in each year since 1,872 was as follows:—

Years.	No. of Deaths from Injuries.	Years.	No. of Deaths from Injuries.
1872	5,804	1878	7,550
1873	5,951	1879	7,107
1874	6,165	1880	6,082
1875	6,217	1881	5,950
1876	5,928	1882	5,913
1877	7,539	1883	5,978
Total ...	37,604	Total ...	38,580
Mean ...	6,267	Mean ...	6,430

Deaths from injuries in 1882 and 1883 arranged by sex.

60. The results of the two last years arranged by sex are shown in the following table:—

	1882.			1883.		
	Males.	Females.	Total.	Males.	Females.	Total.
Drowning	1,255	1,387	2,642	1,225	1,488	2,713
Poisoning	58	45	103	74	56	130
Hanging	124	90	214	119	60	179
Wounding	249	112	361	252	103	355
Wild beasts	53	18	71	76	19	95
Snake-bites	847	430	1,277	815	400	1,215
Other causes	910	335	1,245	875	416	1,291
Total ...	3,496	2,417	5,913	3,436	2,542	5,978

It will be seen from the above table that during 1883 under drowning, poisoning, deaths from wild beasts, and unspecified violent deaths there is a total increase of 168; whilst under hanging, wounding and snake-bites there is an aggregate decrease of 103 deaths as compared with the results of 1882. The net increase for 1883 is 65.

Deaths by Divisions and Districts.

61. The next table gives the deaths from injuries for each division and district for 1882 and 1883 and the mean for the previous ten years with their ratios. The number of deaths during the year is in excess of the previous year in the following Divisions: Northern Deccan, Gujarát, and Sind; but below it in the Southern Deccan and Konkan. In 14 districts the deaths exceed the number of the previous year, in 9 they are below it, and in 1, viz., Broach, the number is the same as that of last year:—

Divisions.	Number.	Districts.	Population according to Census of 1881.	Deaths from Injuries in					
				Mean for 10 years from 1873 to 1882.	Ratio per 1,000 of Population.	1882.	Ratio per 1,000 of Population on Census of 1881.	1883.	Ratio per 1,000 of Population on Census of 1881.
Northern Deccan.	1	Khándesh	1,237,231	308	0·29	277	0·22	285	0·23
	2	Násik	781,206	170	0·23	147	0·19	143	0·18
	3	Ahmednagar	751,228	184	0·24	166	0·22	154	0·20
	4	Poona	900,621	303	0·33	266	0·29	291	0·32
	5	Sholápur	582,487	217	0·31	152	0·26	189	0·32
Southern Deccan.	6	Sátára	1,062,350	402	0·38	357	0·34	359	0·34
	7	Belgaum	864,014	366	0·40	337	0·39	271	0·31
	8	Dhárwár...	882,907	392	0·41	282	0·32	288	0·33
	9	Kaládgi	638,493	326	0·42	224	0·35	219	0·34
Konkan.	10	Kánara	421,840	228	0·57	239	0·57	195	0·46
	11	Ratnágiri	997,099	410	0·40	391	0·39	400	0·40
	12	Kolába	381,649	131	0·37	143	0·38	156	0·41
	13	Bombay City	773,196	309	0·46	336	0·43	339	0·44
	14	Thána	908,548	428	0·50	438	0·48	390	0·43
Gujarát.	15	Surat	614,198	260	0·43	243	0·40	256	0·42
	16	Broach	326,930	132	0·38	130	0·40	130	0·40
	17	Kaira	804,800	321	0·41	301	0·37	346	0·43
	18	Panch Mahals	255,479	116	0·48	83	0·32	108	0·42
	19	Ahmedabad	856,324	253	0·30	241	0·28	207	0·24
Sind.	20	Karáchi	478,688	282	0·65	263	0·55	311	0·65
	21	Hyderabad	754,624	477	0·65	411	0·54	453	0·60
	22	Thar and Párkar ...	263,344	81	0·44	105	0·52	101	0·50
	23	Shikárpur	852,986	307	0·39	335	0·39	364	0·43
	24	Upper Sind Frontier ...	124,181	37	0·38	46	0·37	23	0·18

ABSTRACT.

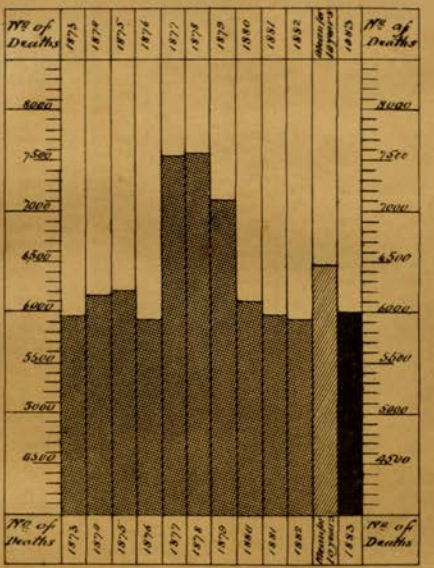
Northern Deccan	4,352,773	1,182	0·28	1,006	0·24	1,032	0·25	
Southern Deccan	3,447,764	1,486	0·40	1,200	0·35	1,137	0·33	
Konkan	3,482,333	1,506	0·46	1,547	0·44	1,480	0·42	
Gujarát	2,857,731	1,082	0·38	998	0·35	1,047	0·36	
Sind	2,413,823	1,184	0·53	1,160	0·48	1,292	0·53	
	16,454,424	6,440	0·40	5,913	0·36	5,978	0·36	

Death-rates in urban and rural population.

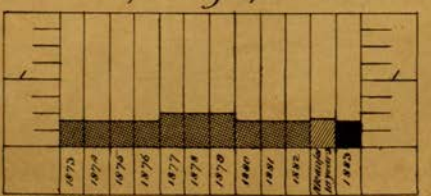
62. In the following table these deaths are arranged according to the urban and rural registration circles in each district. In the 11 districts—Ahmednagar, Poona, Sholápur, Sátára, Belgaum, Dhárwár, Kaládgi, Broach, Panch Mahals, Shikárpur, and Upper Sind Frontier—there were more deaths from injuries among the urban than among the rural population. The highest death-rate among the urban population (0·55 per 1,000 of population) is recorded in Shikárpur and the lowest (0·15) in Kolába. The highest death-rate among the

Diagram

Showing the mortality from Injuries in the Bombay Presidency for 1883 and from 1873 to 1882 inclusive.



Ratio per 1000 of Population



Govt. Photozinco. Office, Poona, 1884

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rural population is recorded (0·69) in Karáchi and the lowest (0·15) in the Upper Sind Frontier :—(See diagram on opposite page).

Districts.	Urban and Rural.	Population.	1882.	1883.
Khándesh	Urban ...	49,465	0·18	0·22
	Rural ...	1,187,766	0·22	0·23
Násik	Urban ...	48,535	0·23	0·18
	Rural ...	732,671	0·19	0·18
Ahmednagar	Urban ...	46,288	0·26	0·24
	Rural ...	704,940	0·22	0·20
Poona	Urban ...	147,376	0·42	0·43
	Rural ...	753,245	0·27	0·30
Sholápur	Urban ...	92,926	0·41	0·51
	Rural ...	489,561	0·23	0·29
Sátára	Urban ...	51,482	0·45	0·35
	Rural ...	1,010,863	0·33	0·34
Belgaum	Urban ...	54,190	0·54	0·42
	Rural ...	809,824	0·38	0·31
Dhárwár	Urban ...	91,071	0·31	0·41
	Rural ...	791,836	0·32	0·32
Kaládgi	Urban ...	7,024	0·14	0·43
	Rural ...	631,469	0·35	0·34
Kánara	Urban ...	24,390	0·66	0·16
	Rural ...	397,450	0·56	0·48
Ratnágiri	Urban ...	21,563	0·56	0·32
	Rural ...	975,527	0·39	0·40
Kolába	Urban ...	13,180	0·53	0·15
	Rural ...	368,469	0·37	0·42
Bombay City	Urban ...	773,196	0·43	0·44
	Rural ...	.....	...	...
Thána	Urban ...	37,717	0·50	0·40
	Rural ...	870,831	0·48	0·43
Surat	Urban ...	123,073	0·30	0·26
	Rural ...	491,125	0·42	0·46
Broach	Urban ...	48,760	0·55	0·51
	Rural ...	278,170	0·39	0·38
Kaira	Urban ...	67,614	0·22	0·40
	Rural ...	737,186	0·39	0·43
Panch Mahála	Urban ...	25,736	0·40	0·54
	Rural ...	229,743	0·32	0·40
Ahmedabad	Urban ...	171,390	0·29	0·18
	Rural ...	684,934	0·28	0·26
Karáchi	Urban ...	68,332	0·41	0·41
	Rural ...	410,356	0·57	0·69
Hyderabad	Urban ...	45,195	0·35	0·35
	Rural ...	709,429	0·57	0·62
Thar and Párkar	Urban ...	2,828	...	...
	Rural ...	200,516	0·52	0·50
Shikárpur	Urban ...	83,073	0·51	0·55
	Rural ...	769,913	0·38	0·41
Upper Sind Frontier	Urban ...	11,352	0·53	0·53
	Rural ...	112,829	0·31	0·15
Presidency ...	Urban ...	2,105,756	0·39	0·39
	Rural ...	14,348,658	0·35	0·36

63. In the following table the ratios of town and cantonment circles are compared with the ratios of the districts in which they are situated, and it will be seen from it that in 30 town and cantonment circles the rate of mortality is higher than in the district to which they belong.

Death-rates from injuries in Towns and Cantonments compared with Districts.

The highest ratio (1·22) took place in Jambusar town of the Broach District and the lowest (0·08) in Wái of the Sátára District :—

Districts.	Death-rate from Injuries of Districts in 1883.	Town Circles and Cantonment Circles.	Death-rate from Injuries of Towns and Cantonments in 1883.
		Dhulia	0·16
Khándesh	0·23	Nandurbár	0·29
		Chopda	0·29
		Nasirabad	0·20
		Násik	0·21
Násik	0·18	Yeola	0·17
		Devláli Cantonment ...	...
		Málegaon do.	0·26
		Ahmednagar	0·21
Ahmednagar	0·20	Sangamner	0·11
		Ahmednagar Cantonment ...	0·65
		Poona	0·47
		Junnar...	0·10
Poona	0·32	Poona Cantonment ...	0·33
		Kirkee do.	0·69
		Sholápur	0·43
Sholápur	0·32	Bársi	0·56
		Pandharpur	0·71
		Sátára	0·48
Sátára	0·34	Karád	0·28
		Wái	0·08
		Belgaum	0·52
		Gokák...	0·68
Belgaum	0·31	Athni	0·36
		Belgaum Cantonment ...	...
		Dhárwár	0·70
		Hubli	0·22
Dhárwár	0·33	Gadag-Betgeri	0·33
		Ránebennur	0·20
Kaládgi	0·34	Kaládgi	0·43
		Kárwár	0·22
Kánara	0·46	Kumta	0·09
		Vengurla	0·56
Ratnágiri	0·40	Ratnágiri	0·15
		Alibág	0·16
Kolába	0·41	Mahád...	0·14
Bombay City	0·44	Bombay City	0·44
		Thána	0·35
Thána	0·43	Kalyán...	0·47
		Panvel...	0·39
		Surat	0·24
Surat	0·42	Bulsár	0·38
		Broach...	0·29
Broach	0·40	Jambusar	1·22
		Kaira	0·24
		Nadiád...	0·46
Kaira	0·43	Borsad	0·49
		Kapadvanj	0·35
		Godhra	0·75
Panch Mahála	0·42	Dohad	0·40
		Ahmedabad	0·17
		Gogha	0·28
		Viramgám	0·11
Ahmedabad	0·24	Dholka	0·34
		Ahmedabad Cantonment ...	...
Karáchi	0·65	Karáchi	0·41
Hyderabad	0·60	Hyderabad	0·35
Thar and Párkar	0·50	Umarkot	...
		Shikárpur	0·35
Shikárpur	0·43	Sukkur	0·84
		Lárkhána	0·60
Upper Sind Frontier ...	0·18	Jacobabad T. C. and Ct. ...	0·53

Snake-bites by months.

64. The monthly distribution of deaths from snake-bites are given in the next statement for each year from 1878 to 1883 inclusive. These deaths in 1883 were as usual most numerous during the rainy season :—

Months.	Years.						
	1878.	1879.	1880.	1881.	1882.	Mean for 5 years.	1883.
January	33	29	26	39	35	32	34
February	23	28	20	34	39	29	28
March	52	37	49	55	47	48	44
April	52	51	50	55	63	54	53
May	88	96	94	95	102	95	95
June	100	128	159	162	149	140	155
July	126	146	177	191	168	161	179
August	123	133	150	165	189	152	226
September	161	141	159	161	211	167	181
October	122	154	177	128	166	149	133
November	64	63	78	80	71	71	62
December	39	38	40	44	37	40	25
	983	1,044	1,179	1,209	1,277	1,138	1,215

Snake-bites by Districts.

65. They are similarly shown by localities, and, as usual, the highest number (212) is from Hyderabad, Thána follows with 126, and Ratnágiri with 112. In the City of Bombay there were only 6, and 4 in the Upper Sind Frontier :—

Districts.	Years.						
	1878.	1879.	1880.	1881.	1882.	Mean for 5 years.	1883.
Khándesh	24	34	39	44	25	33	24
Násik	9	21	29	21	13	19	14
Ahmednagar ...	9	7	26	17	18	15	14
Poona	25	25	26	21	31	26	28
Sholápur	9	2	11	9	10	8	7
Sátára	34	49	51	44	46	45	49
Belgaum	31	23	31	43	34	32	30
Dhárwár	18	29	23	36	24	26	27
Kaládgi	7	18	19	32	33	22	35
Kánara	33	25	29	27	22	25	12
Ratnágiri	151	159	174	164	149	159	112
Kolába	28	20	24	25	32	26	20
Bombay City... ...	6	6	10	2	5	6	6
Thána	103	122	107	121	156	122	126
Surat	35	40	50	54	49	46	48
Broach	14	16	14	26	35	21	28
Kaira	50	46	79	60	61	59	77
Panch Mahála ...	21	25	36	28	29	28	26
Ahmedabad	28	42	39	31	64	41	65
Karáchi	64	71	87	99	87	82	56
Hyderabad	195	190	193	186	190	191	212
Thar and Párkar ...	27	29	42	42	78	44	78
Shikárpur	59	42	46	74	77	60	107
Upper Sind Frontier ...	3	2	3	3	9	4	4
	983	1,044	1,179	1,209	1,277	1,140	1,215

Details of Injuries.

66. In the following table the deaths from injuries are detailed under specified headings, and it will be seen that of the 2,713 deaths by drowning, 418 were suicidal, 2,113 were accidental, and 182 are entered as "otherwise;" this heading means that when the return was submitted these deaths could neither be pronounced suicidal nor accidental. There were 1,285 deaths by drowning in wells against 1,274 in 1882. Of the 683 suicidal deaths 418 were the result of drowning, 74 of taking poison, 167 of hanging, and 24 of self-inflicted wounds.

Suggestion for covering wells.

During the past five years 7,563 persons have lost their lives by being drowned in wells, and this fact suggests the question whether nothing can be done to prevent this large loss of life. For sanitary purposes alone the covering of all wells is a most important matter, and if Government were pleased to order it to be carried out not only would the quality of the water be improved but a large annual saving of life would be effected.

No.	Names of Districts.	1 Drowning. Suicidal. Well. Male.	Female.	Total.	Tank. Male.	Female.	Total.	Otherwise. Male.	Female.	Total.	2 Drowning. Accidental. Well. Male.	Female.	Total.	Tank. Male.	Female.	Total.	Otherwise. Male.	Female.	Total.	3 Drowning. * Otherwise. Well. Male.	Female.	Total.	Tank. Male.	Female.	Total.	Otherwise. Male.	Female.	Total.
1	Khándesh	11	12	23	..	..	..	3	3	6	25	46	71	3	4	7	31	19	50	..	1	1	..	..	..	9	4	13
2	Násik	5	11	16	..	..	..	..	..	..	7	21	28	3	6	9	32	8	22	2	2	4	..	..	..	3	4	7
3	Ahmednagar	8	10	18	..	..	..	..	1	1	6	15	21	4	1	5	14	8	22	4	4	..	..	..	..	1	2	3
4	Poona	8	8	16	..	1	1	4	1	5	18	48	66	1	3	4	32	20	52	2	3	4	..	..	..	3	3	6
5	Sholápur	3	19	22	1	1	2	1	1	2	24	42	67	7	3	10	7	15	22	6	2	8	..	..	..	7	4	11
6	Sátára	7	16	23	..	..	..	..	1	1	28	88	124	..	2	2	14	24	38	3	1	4	..	..	..	4	1	6
7	Belgaum	7	27	34	..	1	1	1	3	4	27	92	79	5	3	8	12	18	30	..	..	..	..	..	..	..	..	..
8	Dhárwár	12	28	40	1	2	4	..	6	6	22	30	62	14	6	22	19	10	29	2	3	5	..	..	..	1	2	4
9	Kaládgi	4	13	17	1	3	4	..	3	3	12	27	39	..	..	..	18	9	27	..	..	..	..	..	..	1	1	2
10	Kánara	2	4	6	2	2	4	..	..	..	12	15	27	15	9	22	25	16	41	..	..	..	..	..	..	4	1	5
11	Ratnágiri	4	6	10	..	1	1	1	2	14	15	35	50	2	2	4	44	30	74	..	2	2	..	..	..	7	4	11
12	Kolába	1	8	9	..	..	..	2	1	3	6	23	37	6	2	8	27	13	40	..	..	..	..	..	..	1	..	1
13	Bombay City	8	5	13	4	8	12	..	2	2	9	5	14	12	2	14	9	..	9	1	1	1	1	2	1	1	2	3
14	Thána	5	12	17	1	1	2	3	3	6	23	34	57	8	3	11	23	14	37	4	4	..	..	..	..	6	2	8
15	Surat	4	11	15	..	..	..	..	1	1	1	21	22	4	5	9	41	29	70	..	1	1	..	..	..	1	..	1
16	Broach	1	5	6	..	..	..	4	..	4	4	10	14	12	8	21	9	7	16	..	..	..	..	..	..	..	..	..
17	Kaira	6	11	17	..	..	..	..	..	..	18	40	58	16	11	27	1	4	5	4	4	8	1	1	..	..	..	..
18	Panch Mahals	2	1	3	..	1	1	..	..	..	3	3	12	6	..	6	2	2	4	..	..	..	..	..	..	4	1	5
19	Ahmedabad	2	10	12	..	..	..	..	..	..	17	27	44	10	5	15	5	3	10	..	..	..	..	..	..	2	..	2
20	Karáchi	..	..	..	..	..	..	..	1	1	2	..	4	5	7	12	88	38	180	2	..	2	..	..	..	1	..	1
21	Hyderabad	..	1	1	..	..	..	1	..	1	7	6	13	26	28	57	11	9	20	..	..	..	5	9	14	1	1	2
22	Thar and Párkar	..	..	..	..	..	..	..	..	..	6	..	6	3	3	5	3	1	4	1	..	1	..	..	..	..	..	..
23	Shikárpur	..	2	2	1	..	1	..	2	2	4	6	10	12	11	23	55	20	78	1	..	1	..	..	..	3	2	5
24	Upper Sind Frontier	..	..	..	..	..	..	..	..	..	..	..	..	..	2	2	3	2	6	..	..	..	2	..	2	1	..	1
	Total	100	220	320	11	22	33	26	39	65	299	616	915	174	119	303	511	384	895	23	27	50	10	11	21	71	48	111

No.	Names of Districts.	2 Poisoning. Suicidal. Male.	Female.	Total.	Accidental. Male.	Female.	Total.	*Otherwise. Male.	Female.	Total.	4 Hanging. Suicidal. Male.	Female.	Total.	Accidental. Male.	Female.	Total.	5 Wounding. Suicidal. Male.	Female.	Total.	Accidental. Male.	Female.	Total.	*Otherwise. Male.	Female.	Total.	6 Wild Beasts. Male.	Female.	Total.
1	Khándesh	1	1	2	..	..	..	1	..	1	1	1	2	2	..	2	2	..	2	7	..	7	5	9	14	2	..	2
2	Násik	..	..	..	..	..	..	..	..	..	3	..	3	..	..	..	..	..	..	4	1	5	2	..	2	2	..	2
3	Ahmednagar	1	1	2	1	..	1	1	1	2	..	..	..	..	..	..	..	..	..	4	1	5	2	2	4	2	..	2
4	Poona	1	1	2	..	..	..	2	4	6	..	..	..	..	..	..	..	..	..	3	..	3	2	3	5	6	..	6
5	Sholápur	1	1	2	1	2	3	..	..	..	2	..	2	..	..	..	1	..	1	3	2	5	1	..	1	7	3	10
6	Sátára	2	2	4	1	..	1	2	1	3	9	1	10	1	..	1	1	..	1	15	2	17	11	..	11	2	..	2
7	Belgaum	..	..	..	..	..	..	..	..	..	6	3	9	1	..	1	..	..	..	9	4	13	9	3	12	2	..	2
8	Dhárwár	..	..	..	..	..	..	..	..	..	18	2	20	..	..	..	..	..	..	6	2	8	5	4	12	2	..	2
9	Kaládgi	..	..	..	..	1	1	1	1	2	8	8	17	1	1	2	1	..	1	13	15	28	5	1	6	3	..	3
10	Kánara	1	..	1	..	..	..	1	6	7	12	3	15	..	..	..	..	..	..	2	1	3	..	2	2	2	..	2
11	Ratnágiri	..	..	..	..	..	..	..	..	..	2	1	3	..	..	..	..	1	1	9	..	9	1	1	2	9	3	12
12	Kolába	..	..	..	..	..	..	..	..	..	2	1	3	..	..	..	1	..	1	3	1	4	1	..	1	2	..	2
13	Bombay City	2	4	6	12	2	14	..	..	..	2	1	3	..	..	..	2	..	2	3	..	3	..	..	..	..	..	..
14	Thána	1	1	2	..	2	3	1	..	1	10	9	19	..	..	..	2	..	2	14	4	18	9	6	15	2	..	2
15	Surat	3	2	5	..	..	..	..	..	..	4	1	5	..	..	..	1	1	2	5	1	6	4	1	5	9	2	11
16	Broach	..	..	..	..	..	..	..	1	1	..	1	1	..	..	..	..	..	..	3	3	2	..	..	..	2	1	3
17	Kaira	1	1	2	1	1	2	..	..	..	6	6	12	1	..	1	..	1	1	6	2	11	8	..	8	7	2	9
18	Panch Mahals	1	1	2	..	..	..	..	..	..	2	2	4	..	..	..	..	..	..	2	1	3	4	..	4	6	1	7
19	Ahmedabad	1	2	3	1	2	3	..	..	..	4	5	9	3	1	4	2	..	2	12	1	13	4	..	4	3	2	5
20	Karáchi	1	..	1	..	..	..	1	..	1	4	2	6	..	1	1	..	1	1	4	2	6	3	..	3	1	..	1
21	Hyderabad	2	..	2	2	..	2	..	..	..	5	5	10	..	..	..	1	2	3	8	2	12	4	1	5	1	2	3
22	Thar and Párkar	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
23	Shikárpur	1	1	2	..	..	..	1	..	1	3	3	6	..	..	..	..	1	1	6	2	8	9	4	13	2	1	3
24	Upper Sind Frontier	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	6	..	..	6	..	..	..
	Total	44	30	74	19	12	31	11	14	25	110	57	167	9	3	12	16	8	24	140	63	193	96	43	136	76	19	95

No.	Names of Districts.	7 Snake-bite. Male.	Female.	Total.	8 Other Causes. Male.	Female.	Total.	9 Total. Male.	Female.	Total.
1	Khándesh	19	9	24	31	27	58	149	138	283
2	Násik	10	4	14	17	11	28	80	63	143
3	Ahmednagar	6	8	14	30	20	50	80	74	154
4	Poona	18	10	28	38	27	75	143	148	291
5	Sholápur	4	3	7	9	3	12	87	102	189
6	Sátára	26	25	49	45	17	62	181	179	353
7	Belgaum	20	16	36	55	13	48	134	137	271
8	Dhárwár	17	10	27	27	13	42	148	140	288
9	Kaládgi	21	14	35	18	11	29	110	109	219
10	Kánara	10	2	12	39	6	45	126	69	195
11	Ratnágiri	62	49	112	68	26	94	232	168	400
12	Kolába	16	4	20	14	11	25	84	72	156
13	Bombay City	4	2	6	154	61	195	229	110	339
14	Thána	62	44	106	42	15	57	222	158	390
15	Surat	29	19	48	37	18	55	142	112	255
16	Broach	10	12	28	26	7	33	73	57	130
17	Kaira	35	42	77	76	41	117	178	176	340
18	Panch Mahals	21	15	36	14	7	21	67	41	108
19	Ahmedabad	31	54	65	14	4	18	108	99	207
20	Karáchi	45	11	56	18	13	31	172	139	311
21	Hyderabad	176	36	212	71	24	95	320	127	453
22	Thar and Párkar	66	12	78	3	4	7	81	20	101
23	Shikárpur	81	26	107	74	24	98	233	111	364
24	Upper Sind Frontier	4	..	4	1	..	1	17	6	23
	Total	815	400	1,215	875	416	1,291	3,436	2,542	5,978

* The term "Otherwise" is used, because when the Return is submitted, the Law may not have pronounced these cases to be "Homicidal."

OTHER CAUSES.

67. The recorded deaths from causes other than those specified numbered 60,829, of whom 31,513 occurred among males and 29,316 among females. The total for 1882 was 56,164, so for this year there is an increase of 4,665. In the following table these deaths are shown for each division and district, and the mean for the last ten years, the number and ratios per 1,000 of population, and the numbers and ratios for 1882 and 1883 are also given :—

Deaths from other causes by sexes.

By divisions and districts.

Division.	Number.	Districts.	Population according to Census of 1881.	Deaths from "Other Causes" in					
				Mean for 10 years from 1873 to 1882.	Ratio per 1,000 of Population.	1882.	Ratio per 1,000 of Population on Census of 1881.	1883.	Ratio per 1,000 of Population on Census of 1881.
Northern Deccan.	1	Khándesh	1,237,231	828	0·77	721	0·58	1,447	1·17
	2	Násik	781,206	2,038	2·74	1,901	2·43	2,564	3·28
	3	Ahmednagar	751,228	2,611	3·39	2,224	2·96	3,011	4·01
	4	Poona	900,021	2,715	3·00	2,323	2·58	2,863	3·18
	5	Sholápur	582,487	4,045	5·86	1,559	2·68	1,946	3·34
Southern Deccan.	6	Sátára	1,062,350	2,816	2·65	3,060	2·88	2,698	2·54
	7	Belgaum	864,044	9,260	10·02	4,953	5·73	4,534	5·25
	8	Dhárwár	882,907	6,512	6·74	4,554	5·16	4,283	4·85
	9	Kaládgi	638,493	5,685	7·28	2,296	3·60	2,211	3·46
Konkan.	10	Kánara	421,840	3,759	9·33	3,493	8·28	3,511	8·32
	11	Ratnágiri	997,090	4,847	4·77	4,934	4·95	6,281	6·30
	12	Kolába	381,649	1,005	2·82	1,330	3·48	1,710	4·48
	13	Bombay City	773,196	10,481	15·64	12,605	16·30	12,931	16·72
	14	Thána	908,548	1,904	2·21	1,947	2·14	2,252	2·48
Gujarát.	15	Surat	614,198	2,003	3·29	1,689	2·75	1,615	2·63
	16	Broach	326,930	656	1·90	406	1·24	586	1·79
	17	Kaira	804,800	1,079	1·38	1,014	1·26	1,239	1·54
	18	Panch Mahális ...	253,479	316	1·30	78	0·31	65	0·25
	19	Ahmedabad	896,324	3,583	4·29	2,464	2·88	2,603	3·04
Sind.	20	Karáchi	478,688	1,020	2·35	1,316	2·75	1,253	2·62
	21	Hyderabad	754,624	591	0·81	517	0·69	683	0·91
	22	Thar and Párkar ...	203,344	109	0·59	270	1·33	144	0·71
	23	Shikárpur	852,986	342	0·43	466	0·55	360	0·42
	24	Upper Sind Frontier ...	124,181	55	0·37	44	0·35	39	0·31

ABSTRACT.

Northern Deccan	4,252,773	12,237	2·33	8,728	2·05	11,831	2·78
Southern Deccan	3,447,764	24,283	6·50	14,883	4·31	13,726	3·69
Konkan	3,482,323	21,996	6·65	24,309	6·98	26,685	7·66
Gujarát	2,857,731	7,637	2·71	5,651	1·98	6,108	2·14
Sind	2,413,823	2,117	0·94	2,613	1·08	2,479	1·03
Total	16,454,414	68,270	4·19	56,164	3·41	60,829	3·70

Deaths since 1872.

68. The number of deaths registered from other causes in each year since 1872 is as follows :—

Years.	Number of Deaths from other Causes.	Years.	Number of Deaths from other Causes.
1872	67,404	1878	75,642
1873	60,343	1879	59,467
1874	57,840	1880	49,736
1875	65,679	1881	55,522
1876	63,882	1882	56,164
1877	138,426	1883	60,829

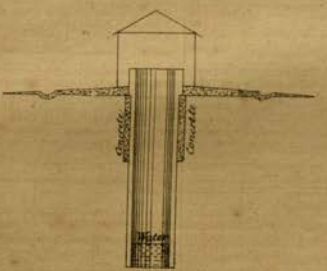
69. In concluding this section of the report on the chief diseases I would desire to point out that great and terrible as the mortality from cholera during the year 1883 was, as by it alone 37,954 deaths were caused, yet that fevers were more than seven times as deadly, as from them no less than 266,741 persons—more than a quarter of a million human beings—lost their lives.

Cholera from the rapidity with which it destroys is more appalling to the popular mind, but fever is the cause of a far higher mortality.

The measures which are necessary to lessen the direful effects from these two causes are those which have been brought so frequently and so prominently to notice by the Army Sanitary Commission: the improvement of the water-supply and the cleaning of the surface and the drying and aeration of the subsoil of the inhabited areas throughout the Presidency.

Government has sanctioned standard plans for barracks, latrines, &c., but it seems to me that above all is required a standard plan for wells. The following is the description of a well as it should be by the Army Sanitary Commission:—

"Where a cesspit has been close to the house well, it would be better to fill the well up with clean earth, and dig another as far as possible from the site of the cesspit. All new wells should be cased outside with clay or cement, or with concrete, to a sufficient depth to cut off the surface or subsoil water from the well, in the manner shown in the following section:—



"The well is dug and built up in the usual way, but when it comes within 8 or 10 feet of the surface the tube must be coated outside with puddle or concrete, to cut off the upper portion of the water. The tube of the well should be carried two feet above the ground level, and covered with a roof; the ground round the well should also be coated with concrete and sloped away from the well to open channels, as shown in the plan. With these precautions, which are not difficult to take, and not costly, any well within a compound, except in very foul ground, would yield wholesome water."

I would hope that Government will be pleased to direct increased attention to be paid to the conservation of all sources of water-supply, both in towns and villages, throughout the Presidency, and especially that no new well the water of which is to be used for drinking shall be constructed except on the plan recommended by the Army Sanitary Commission.

I also hope that measures may be taken to improve the quality of the water in those towns, which are dependent solely on rivers for their supply. In some such in Gujarát and in the south it is possible to dig wells on the river banks; and this course would probably be the best to adopt, but over great parts of this Presidency this action would do no good because the river bed is formed on the hard trap rock, and there would be no filtration through the soil, but it seems to me some rough means of filtration might be adopted. Whether in small rivers by building during the fine season a thick wall of sand across the bed, or part of the bed, or by digging reservoirs on the side and making the water passing into

them filter through a thick layer of sand or as suggested by Mr. McLaren, R.E., by having walls holding a filtering medium made in the bed of the river from which the people could draw water during the fine season. But in drawing attention to the subject, I desire to point out in the strongest way I can the great danger of drinking river water, which has received the impurities of villages situated further up its course.

The decreased mortality from cholera in Bombay and in other cities where a pure water-supply has been introduced is a convincing proof that it is the first great line of defence against cholera.

The geological formation of the greater portion of the Presidency forbids the hope that artesian wells would be of any service in most of the districts, but in Gujarát perhaps they might be tried with a probability of success, which if attained would solve one of the most difficult problems in that part of the country.

The people, however, are too poor to make the experiment, but I would hope that Government will be pleased to devote a portion of the public funds for the purpose of experiment.

70. The one great cause of fever throughout India is the existence of dampness in an impure and foul surface and subsoil in inhabited areas. I by no means forget the general malarious character of many parts of the country, but I am certain that most of the disease in India is due to local insanitary conditions around and in the midst of the habitations of the people.

It is clear that sanitation must begin at the houses of the people before any great reduction in the death-rate can be looked for. It cannot, however, be carried on without a constant and heavy expenditure. Government gives a special allowance for education and I would respectfully venture to express my opinion that the preservation of health is as great a boon to the masses as the culture of the mind. It may be said that as education spreads the people will be led to see the great calamities they suffer from by such a heavy mortality taking place year by year in their midst and gradually see the necessity for taking measures to prevent it. That is very true, but when I see that no less than 170,327 children were in a single year cut off before they had attained their fifth year of life, I should fail in my duty if I did not ask Government to provide in some way for the removal of the insanitary conditions to which these deaths are due.

I believe if the object were properly explained to them the people of India would readily submit to a special tax for sanitary improvement, *if only the money so collected, were spent in the improvement of each individual village from which it were received.* The people of India are by instinct a cleanly race; they wish to be clean, but they have no idea of united action so as to carry out those structural works by which alone for example the subsoil can be dried or water after domestic use be removed to a distance from habitations.

I believe that the leaders of native thought would support the introduction of such a tax, for there is no measure which would conduce more materially to the real and permanent welfare of their countrymen or would save an amount of human misery which it is perfectly lamentable to contemplate.

SECTION III.

GENERAL HISTORY OF VACCINATION.

Changes amongst the Supervising Officers.

1. The changes amongst the supervising officers during 1883-84 (1st April 1883 to 31st March 1884) were as follows :—

(*a*) In the Presidency Circle Dr. Ananta Chandroba took three months privilege leave and handed over charge to Dr. Sakharam Arjun on 12th February 1884.

(*b*) In the Eastern Gujarát Registration District Dr. Colah having obtained three months privilege leave handed over charge to Dr. MacCartie on 26th July 1883, who in his turn handed it over to Dr. Robb, the Civil Surgeon of Surat, on 29th September 1883. Dr. Colah resumed charge of his duties on 25th October 1883.

(*c*) In the Western Gujarát Circle Dr. Tully officiated as Superintendent of Vaccination, and in Sind Dr. Peacocke as Deputy Sanitary Commissioner, both since 27th November 1882.

Strength of the Department.

2. The subjoined table shows in detail the changes in the strength of the department during the years 1882-83 and 1883-84 :—

No.	Division and Circles.	Area in Square Miles.	Population according to Census of 1881.	Years.	Deputy Sanitary Commissioner.	Superintendents of Vaccination.	Assistant Superintendents and Vaccinators.	Extra Vaccinators, Inspectors, Clerks and Assistants.	Number of Vaccinators. Government. Civil.	Military.	Municipal.	Cantonments.	Local Fund. Vaccinators.	Circulators.	Native States.	Total.	Number of Posts. Municipal.	Local Funds.	Native States.	Total.	Total Strength.
1	Northern Deccan Registration District	36,843·7	4,284,836	1882-83	1	..	7	..	..	..	..	..	8	72	1	81	11	71	1	83	164
				1883-84	1	..	7	..	..	..	..	..	8	72	1	81	11	71	1	83	165
2	Southern Deccan Registration District	29,751·4	5,031,393	1882-83	1	..	6	1	..	..	..	..	6	47	3	56	9	47	32	88	180
				1883-84	1	..	6	1	..	..	..	..	6	48	3	57	9	48	32	89	133
3	Konkan Registration District	15,357	3,009,477	1882-83	1	..	4	..	..	..	..	..	3	..	44	47	2	53	8	63	120
				1883-84	1	..	4	..	..	..	..	..	3	..	44	47	2	54	8	64	120
4	Presidency Circle	22	773,196	1882-83	..	1	..	1	16	..	..	..	..	..	..	16	..	..	3	3	20
				1883-84	..	1	..	1	17	..	..	..	..	..	..	17	..	..	3	3	21
5	Eastern Gujarát Registration District	37,712·070	4,763,514	1882-83	1	..	5	..	..	..	..	..	6	77	4	89	57	1	37	95	145
				1883-84	1	..	5	..	..	..	..	..	6	77	4	89	58	1	37	96	147
6	Western Gujarát Circle ..	27,356·48	2,920,577	1882-83	..	1	..	3	6	..	..	..	..	..	..	6	41	1	..	42	48
				1883-84	..	1	..	3	6	..	..	..	..	..	..	6	41	1	..	42	48
7	Sind Registration District	54,113·01	2,547,976	1882-83	1	1	6	..	..	..	..	..	6	49	3	58	55	1	13	69	127
				1883-84	1	1	6	..	..	..	..	..	6	49	3	58	55	1	13	69	127
8	Baroda Circle	8,570	2,185,005	1882-83	..	..	3	..	..	..	..	..	..	..	..	..	24	1	..	25	25
				1883-84	..	..	3	..	..	..	..	..	..	..	..	..	24	1	..	25	25
9	Cutch Circle	6,580	512,064	1882-83	..	..	..	1	..	..	..	..	..	..	..	..	17	..	..	17	17
				1883-84	..	..	..	1	..	..	..	..	..	..	..	..	17	..	..	17	17
10	Aden	11·6	34,860	1882-83	..	..	..	..	..	..	..	..	1	..	..	1	1	..	..	1	2
				1883-84	..	..	..	..	..	..	..	..	1	..	..	1	1	..	..	1	2
	Military Stations ..	..	..	1882-83	..	..	..	..	..	2	..	..	..	..	..	2	..	..	..	..	2
				1883-84	..	..	..	..	..	2	..	..	..	..	..	2	..	..	..	..	2
	Total ..	226,139·26	25,815,598	1882-83	5	3	31	5	22	2	39	1	240	16	146	468	230	128	196	554	1,022
				1883-84	5	3	31	5	23	2	40	1	240	20	146	473	230	129	133	492	1,023

In the Northern Deccan there has been an increase of 1 candidate vaccinator entertained in the Poona Collectorate. In the Southern Deccan 1 candi-

date vaccinator, 1 vaccinator and 1 peon have been added to those in the Sátára Collectorate. In the Konkan the services of 1 vaccinator and 1 peon were dispensed with by the Panvel and Uran Municipalities on 1st September last, whilst the Kárwár Municipality entertained a vaccinator from 1st July 1883 as a temporary measure. A candidate vaccinator was also employed in the Ratnágiri Collectorate. The increase in the Presidency Circle is owing to a fourth clerk having been employed in the office of the Superintendent of Vaccination. In Eastern Gujarát the establishment was supplemented by an addition of 1 vaccinator and 1 peon in Surat City. In Sind there is an addition of 1 candidate vaccinator for the Karáchi Collectorate. For the Department there has been an increase of 1 clerk, 2 vaccinators, 4 candidate vaccinators, and 1 peon—in all 8 persons.

Additional grants have been sanctioned since February by the Collectors of Sátára, Belgaum, Dhárwár and Kaládgi for the entertainment of extra vaccinators to check the spread of the small-pox epidemic. The Collector of Ratnágiri has also made provision for the employment of extra vaccinators in that Collectorate since March last. The Collectors of Surat and Karáchi have each agreed to maintain permanently an additional vaccinator and a peon from the 1st April 1884, whilst the Collectors of Kaládgi and Panch Maháls will eventually do the same for their respective tálukas of Bijápur and Godhra.

Work amongst the Civil and Military Population.

3. The following table contrasts the work amongst the civil and military population during the year under report with that for 1882-83 :—

Establishment.	Persons primarily vaccinated.				Persons revaccinated.				Total Number of Persons operated on.			
	1882-83.	1883-84.	Increase.	Decrease.	1882-83.	1883-84.	Increase.	Decrease.	1882-83.	1883-84.	Increase.	Decrease.
In Civil life.												
Itinerant	758,047	792,784	34,737 4·45	..	59,947	50,494	..	9,453 15·78	817,994	843,278	25,284 3·09	..
Dispensary	28,770	29,966	1,216 4·23	..	2,435	2,525	90 3·70	..	31,205	32,511	1,306 4·19	..
Total ..	786,817	822,770	35,953 4·57	..	62,382	53,019	90 0·14	9,453 15·15	849,199	875,789	26,590 3·11	..
In Army life.												
Native Army ..	4,087	5,698	..	1,289 25·85	3,581	2,848	..	733 20·23	8,568	6,544		2,024 23·62
British Army ..	402	497	95 23·63	..	542	1,009	467 86·16	..	944	1,506	562 59·53	..
Total ..	5,289	4,195	95 1·76	1,289 23·92	4,123	3,855	467 11·33	733 17·83	9,512	8,050	562 5·98	2,024 21·28
Total for the whole Presidency.	792,206	826,965	36,048 4·55	1,289 0·16	66,505	56,874	557 0·84	10,188 15·32	858,711	889,839	27,152 3·16	2,024 0·24

It will be observed that there were 826,965 persons primarily vaccinated and 56,874 revaccinated against 792,206 and 66,505 in 1882-83, showing a net increase of 34,759, or 4·39 per cent., under primary vaccinations, and a net decrease of 9,631, or 14·48 per cent., under revaccinations. There was a considerable decrease (23·62 per cent.) under total operations amongst Native troops, the figures being 6,544 against 8,568 in the preceding year. The rate of increase in re-vaccinations was only 0·84 per cent., but it was very high amongst European troops, being 86·16 per cent. On the whole, there has been an increase of 25,128 or, in other words, for every 100 persons operated on in 1882-83 the numbers for this year have been 102·92.

The number of the surviving newly-born children successfully vaccinated in each collectorate.

4. The following table shows for the last two years the number of surviving newly-born children successfully vaccinated in each collectorate, exclusive of Native States. The birth and death statistics are taken for the calendar year in calculating the number, because infants are generally not vaccinated until 3 months after birth :—

No.	Collectorate.	Years.	Children vaccinated successfully.		Children available for Vaccination.	Births returned as having been registered.	Deaths registered among Children under 1 year.
			Those under 1 year.	Those between 1 and 6 years.			
1	Khándesh	1882-83	23,951	18,948	36,000	43,114	7,114
		1883-84	23,678	12,452	30,900	39,876	9,576
2	Násik	1882-83	14,223	7,505	23,634	27,473	4,439
		1883-84	14,165	7,410	19,677	24,214	5,137
3	Ahmednagar	1882-83	18,669	8,928	25,381	29,386	4,005
		1883-84	20,062	7,508	22,450	28,571	6,121
4	Poona	1882-83	11,583	12,356	21,694	24,754	3,060
		1883-84	13,522	10,631	21,169	25,705	4,536
5	Sholápur	1882-83	14,309	7,140	17,336	20,138	2,812
		1883-84	16,493	8,904	16,986	20,634	3,648
6	Sátara	1882-83	18,993	13,577	36,726	41,497	4,771
		1883-84	19,293	16,821	35,028	40,727	5,709
7	Belgaum	1882-83	10,504	12,621	28,384	32,477	4,093
		1883-84	10,618	16,472	30,251	35,078	4,827
8	Dhárwár	1882-83	9,837	11,563	30,445	36,257	5,812
		1883-84	11,792	14,349	32,532	38,927	6,395
9	Kaládgi	1882-83	8,697	6,548	19,775	22,678	2,903
		1883-84	9,734	10,559	18,974	22,436	3,462
10	Kánara	1882-83	2,178	6,591	10,287	12,625	2,338
		1883-84	2,382	7,238	11,153	13,803	2,650
11	Ratnágiri	1882-83	12,834	9,179	19,359	20,622	1,263
		1883-84	11,836	12,484	18,141	19,976	1,835
12	Kolába	1882-83	5,707	3,606	8,021	9,178	1,157
		1883-84	5,094	2,990	8,825	10,252	1,427
13	Thána	1882-83	11,771	12,720	22,424	25,898	3,474
		1883-84	10,811	8,105	22,344	26,643	4,299
		1882-83	14,940	4,641	9,374	15,094	5,720
14	Bombay City	1883-84	12,331	2,157	8,418	14,932	6,514
		1882-83	12,296	7,222	18,837	21,853	2,996
15	Surat	1883-84	11,926	4,751	17,518	21,610	4,092
		1882-83	7,221	3,606	8,699	9,342	1,303
16	Broach	1883-84	7,542	2,853	8,748	10,908	2,160
		1882-83	15,935	6,117	22,757	26,441	3,684
17	Kaira	1883-84	18,438	7,015	24,045	28,998	4,953
		1882-83	4,853	2,983	6,003	6,813	810
18	Panch Mahals	1883-84	5,922	3,755	5,799	6,629	830
		1882-83	21,679	4,941	19,623	23,392	3,769
19	Ahmedabad	1883-84	22,607	5,687	22,424	26,917	4,493
		1882-83	10,577	3,898	7,964	9,871	1,907
20	Karáchi	1883-84	11,493	3,861	7,299	9,005	1,745
		1882-83	14,228	6,329	6,944	8,767	1,823
21	Hyderabad	1883-84	16,116	5,597	9,909	12,010	2,101
		1882-83	6,742	3,344	4,363	5,061	698
22	Thar and Párkar	1883-84	6,746	2,593	5,376	5,878	502
		1882-83	22,249	3,269	11,714	17,330	5,616
23	Shikárpur	1883-84	21,836	4,143	13,385	15,865	2,480
		1882-83	2,998	699	941	1,305	364
24	Upper Sind Frontier	1883-84	3,291	902	1,981	2,197	216
	Total	1882-83	296,044	117,381	415,415	491,346	75,931
		1883-84	307,358	178,627	412,093	501,801	89,708

This year the successful vaccinations fell short of the total registered births *minus* deaths amongst those under 1 year old, and in the first 18 districts, except Bombay, the same result is found, and yet the figures are higher than those for last year in the return of newly-born children, and there is a greater proportionate number of successful cases in most of the districts, except Khándesh, Násik, Ratnágiri, Kolába, Thána, Bombay City, Surat and Shikárpur. On the whole, out of 412,093 surviving infants available for vaccination, 307,358, or 74·58 per cent., have been protected.

Primary Vaccinations.

5. The next table shows the number of persons primarily vaccinated, as also the increase or decrease for each of the last ten years :—

Primarily vaccinated.	Years ending 31st March.									
	1874.	1875.	1876.	1877.	1878.	1879.	1880.	1881.	1882.	1883.	1884.
Persons	622,824	671,817	690,620	732,164	679,605	561,969	566,501	642,505	739,525	796,206	836,964
Increase	..	48,993	18,803	41,544	(Decrease) 52,559	117,636	4,532	80,004	96,819	62,681	54,134

Results in Primary Vaccinations.

Out of 826,965 persons primarily vaccinated, 791,323 cases were successful, or 95·69 per cent. or 0·46 per cent. below 1882-83. The number of unsuccessful cases were in excess of that in the preceding year, being 17,363 against 14,232. 2,433 persons were operated on a second time on account of the failure of the first operation, and in 20,712 cases the result is unknown, as the children were not again brought for inspection. The following table shows the number of persons primarily vaccinated, and the success among them for the past 10 years :—

	Years ending 31st March									
	1875.	1876.	1877.	1878.	1879.	1880.	1881.	1882.	1883.	1884.
Number of Persons primarily vaccinated.	671,817	690,639	792,184	670,055	561,969	566,501	642,505	729,323	792,206	826,965
Do. successfully.	632,982	660,506	698,148	650,500	531,221	537,840	616,513	703,623	761,745	791,323
Percentage of Success	94·67	95·64	95·25	94·11	94·53	95·11	95·95	96·52	96·15	95·69

Revaccinations.

6. The number of persons revaccinated and the success among them for the last 10 years are given below :—

	Years ending 31st March									
	1875.	1876.	1877.	1878.	1879.	1880.	1881.	1882.	1883.	1884.
Number of Persons revaccinated.	60,807	117,714	82,993	80,893	60,177	63,122	62,479	56,769	66,505	56,874
Do. successfully.	45,618	94,462	66,770	60,847	49,830	45,435	45,481	40,675	46,420	37,657
Percentage of Success	75·02	80·25	80·45	75·22	72·03	71·98	72·79	71·61	69·80	66·21

Results in Revaccinations.

During the year, 56,874 persons were revaccinated against 66,505 for 1882-83. In 129 instances the revaccinations were repeated, in 6,289 instances the results could not be ascertained, and in 13,057 the operation failed. The number of successful cases was 37,657, or 66·21 per 100 against 69·80 in the preceding year.

Total Operations.

7. The subjoined table shows the total number of persons primarily vaccinated and revaccinated (taken together), as also the number of successful cases during each of the last 10 years :—

	Years ending 31st March									
	1875.	1876.	1877.	1878.	1879.	1880.	1881.	1882.	1883.	1884.
Persons operated on	732,024	809,353	815,177	750,948	621,146	649,623	704,984	786,092	858,711	883,839
Do. successfully	681,600	755,024	764,918	691,437	581,051	603,275	661,994	744,598	808,165	828,980
Percentage of Success	93·34	93·40	93·83	92·08	92·06	92·87	93·90	94·72	94·11	93·79

Results in Total Operations.

It will be seen that the total number of persons operated on were 883,839, and of these 828,980, or 93·79 per cent., were successful. In 1882-83 the percentage was 94·11. There were 2,562 persons operated on more than once; the "unsuccessful" numbered 30,420, and the "unknown" cases were 27,001.

Primary Vaccinations, Revaccinations and Total Operations by Districts and Circles.

8. The details of the total number of persons operated on for the last two years by Districts and Circles of vaccination, together with the percentages of increase and decrease, are shown on the next page :—

Districts and Circles.	Persons primarily vaccinated.				Persons revaccinated.				Total Number of Persons operated on.			
	1882-83.	1883-84.	Increase.	Decrease.	1882-83.	1883-84.	Increase.	Decrease.	1882-83.	1883-84.	Increase.	Decrease.
Northern Deccan Registration District.	144,914	143,433	..	2,481 / 1·71	3,077	2,352	..	725 / 23·56	147,901	144,785	..	3,206 / 2·17
Southern Deccan Registration District.	142,486	173,889	31,403 / 22·04	..	3,456	5,332	1,876 / 54·28	..	145,942	179,221	33,279 / 22·80	..
Konkan Registration District.	80,560	78,227	..	2,373 / 2·90	5,496	5,091	..	407 / 7·40	86,056	83,318	..	2,740 / 3·18
Presidency Circle	22,407	15,823	..	6,584 / 29·38	14,790	8,716	..	12,074 / 81·64	37,197	18,539	..	18,658 / 50·16
Eastern Gujarát Registration District.	134,207	130,134	3,927 / 4·77	..	2,514	7,271	5,055 / 218·26	..	136,523	137,605	10,882 / 8·08	..
Western Gujarát Circle ..	99,005	105,185	6,180 / 6·24	..	2,564	7,690	5,126 / 199·92	..	101,569	112,875	11,306 / 11·13	..
Sind Registration District.	83,977	86,347	2,370 / 2·82	..	30,088	21,731	..	8,357 / 27·78	114,065	108,078	..	5,987 / 5·24
Baroda	67,678	70,728	3,050 / 4·51	..	249	466	217 / 87·15	..	67,927	71,194	3,267 / 4·81	..
Cutch	20,619	18,803	..	1,816 / 8·81	330	264	..	75 / 22·12	20,958	19,067	..	1,891 / 9·03
Aden, Muscat, and Bushire	964	1,201	237 / 24·59	..	5	6	1 / 20·00	..	969	1,207	238 / 24·56	..
British Army	402	407	85 / 23·63	..	542	1,009	467 / 86·16	..	944	1,506	562 / 59·53	..
Native do.	4,967	3,698	..	1,269 / 25·83	3,811	2,846	..	735 / 20·32	8,568	6,544	..	2,024 / 23·62
Total ..	792,296	826,965	49,262 / 6·22	14,503 / 1·82	66,505	56,874	12,742 / 19·16	22,373 / 33·64	858,711	883,839	59,634 / 6·94	34,506 / 4·01

Primary Vaccinations. Increase and Decrease by Districts and Circles.

9. In primary vaccinations an increase of 49,262, or 6·22 per cent., took place in seven out of twelve districts and circles, namely,—the British Army, Aden, Muscat and Bushire, Southern Deccan, Western Gujarát, Eastern Gujarát, Baroda and Sind, where the rate is only 2·82 per cent.

Revaccinations. Increase and Decrease by Districts and Circles.

10. In revaccinations an increase of 12,742, or 19·16 per cent., is distributed over the Eastern and Western Gujarát, Baroda, British Army, Southern Deccan and Aden, Muscat and Bushire, where the rate is 20 per 100. The decrease in other districts is 22,373, or 33·64 per cent.—nearly double the rate of increase. These districts stand in the following sequence :—The Presidency Circle, Sind, Northern Deccan, Cutch, Native Army and the Konkan ; in the last named the rate was 7·40 per cent.

Total Operations. Increase and Decrease by Districts and Circles.

11. As regards total operations a decrease of 34,506 is to be observed in the Northern Deccan, Konkan, Sind, Cutch, Native Army and the Presidency Circle, which has the highest rate of 50·16 per cent., whilst an increase of 59,634 is distributed over the other six Districts and Circles in the following sequence :—The British Army, Aden, Muscat and Bushire, the Southern Deccan, Western and Eastern Gujarát and Baroda, where it is only 4·81 per cent. The net increase is 25,128, or 2·92 per cent.

Districts and Circles.	Years.	Persons primarily vaccinated.								Total Number of Persons operated on. P.—Primary Vaccinations. R.—Revaccinations.		
		Caste.					Age. N.—Number. S.—Successful.			Sex.		Total.
		Christians.	Hindus.	Mussulmans.	Priests.	Other Castes.	Under 1 Year.	Between 1 and 6 Years.	All other Ages.	Males.	Females.	
Northern Deccan Registration District.	1882-83	744	121,985	8,661	99	15,228	N. 86,154 S. 84,421	56,617 55,277	3,143 1,973	P. 78,993 R. 2,479	71,651 646	150,644 3,125
										76,324	71,669	147,993
	1883-84	573	130,232	7,562	111	14,150	N. 91,554 S. 89,600	49,661 47,900	1,796 1,668	P. 72,934 R. 1,855	70,330 317	143,264 2,172
										74,789	70,647	145,436
Southern Deccan Registration District.	1882-83	947	120,562	10,349	12	11,116	N. 71,199 S. 69,804	47,755 44,656	4,963 3,667	P. 72,781 R. 2,789	69,701 967	142,482 3,756
										75,570	70,672	146,242
	1883-84	306	145,520	14,174	8	13,784	N. 79,443 S. 74,922	69,196 65,204	5,253 5,048	P. 88,805 R. 4,000	85,664 1,352	174,469 5,352
										92,805	86,016	178,821
Konkan Registration District.	1882-83	2,012	69,739	4,701	140	5,978	N. 39,421 S. 38,045	30,620 29,501	4,308 4,110	P. 41,061 R. 3,561	39,495 1,128	80,556 4,689
										44,622	41,623	86,245
	1883-84	1,004	68,591	4,592	87	5,373	N. 37,789 S. 36,332	34,515 32,563	5,620 5,139	P. 40,291 R. 3,311	37,955 1,784	78,246 5,095
										43,602	39,739	83,341
Presidency Circle.	1882-83	1,709	12,503	4,562	1,569	1,974	N. 14,977 S. 14,940	5,662 4,641	1,445 1,155	P. 11,412 R. 1,525	10,905 2,035	22,317 3,560
										22,817	13,960	37,777
	1883-84	1,010	3,978	3,139	1,228	1,477	N. 12,006 S. 12,521	2,230 2,151	668 442	P. 7,791 R. 2,150	6,974 662	14,765 2,812
										9,941	8,636	18,577
Eastern Gujarát Registration District.	1882-83	135	103,640	10,449	549	9,263	N. 78,070 S. 75,698	42,913 41,422	3,175 2,617	P. 64,389 R. 2,954	59,519 425	124,908 3,379
										66,343	59,970	126,313
	1883-84	96	109,613	10,776	436	9,212	N. 82,402 S. 80,906	42,583 42,090	3,147 2,921	P. 67,911 R. 6,713	60,323 658	128,234 7,371
										74,624	60,981	135,605
Western Gujarát Circle.	1882-83	29	60,564	12,397	58	5,008	N. 42,650 S. 39,606	24,709 22,964	1,046 1,425	P. 30,719 R. 1,049	29,796 915	60,515 1,964
										31,768	30,711	62,479
	1883-84	16	83,959	13,709	34	6,185	N. 54,997 S. 50,962	26,777 25,000	1,211 1,258	P. 34,110 R. 4,654	33,985 3,002	68,095 7,656
										38,764	36,987	75,751
Sind Registration District.	1882-83	175	11,923	69,105	10	6,718	N. 61,550 S. 58,030	19,260 18,200	2,967 2,784	P. 43,232 R. 1,487	38,886 17,140	82,118 18,627
										44,719	56,026	100,745
	1883-84	137	13,443	66,247	24	6,496	N. 64,270 S. 61,311	19,304 18,113	2,594 2,535	P. 47,256 R. 10,045	39,921 11,096	86,177 21,141
										57,301	50,977	108,278
Baroda	1882-83	18	87,784	4,849	179	4,760	N. 54,497 S. 52,787	19,726 18,240	469 446	P. 36,272 R. 629	32,956 20	67,228 649
										36,902	32,975	67,877
	1883-84	12	61,442	5,291	68	3,924	N. 56,292 S. 54,315	13,611 13,082	915 750	P. 37,164 R. 808	33,564 58	70,728 866
										37,972	33,622	71,594

Rates per 100.

Results.				Excess of Operations over Persons.	Persons primarily vaccinated.								Total Number of Persons operated on.			Results.				Excess of Operations over Persons.
					Caste.					Age.			Sex.							
Successful.	Unsuccessful.	Unknown.	Total.		Christians.	Hindus.	Mussulmans.	Pársis.	Other Castes.	Under 1 year.	Between 1 and 6 years.	All other Ages.	Males.	Females.	Total.	Successful.	Unsuccessful.	Unknown.	Total.	
140,671	1,597	3,157	145,725	211	0·61	94·18	0·11	0·07	5·15	59·45	29·07	1·43	51·00	49·00	100	96·76	0·75	1·49	100·15	0·15
1,009	421	407	2,077	..						36·28	28·14	1·56	73·91	26·09	100	64·97	21·81	13·22	100	..
140,804	1,988	3,564	148,302	211	..	..	..	..	..	..	..	..	51·00	49·00	100	95·08	1·19	1·73	100·14	0·14
139,121	1,446	1,982	142,550	100	0·40	98·42	0·17	0·08	0·94	56·28	34·46	1·26	50·57	49·43	100	97·76	0·94	1·26	100·02	0·01
1,597	476	278	2,353	1						42·91	23·63	1·16	74·68	25·30	100	67·90	20·26	11·82	100·04	0·04
140,744	1,924	2,259	144,992	107	..	..	..	..	..	..	..	..	51·02	48·98	100	97·22	1·25	1·53	100·07	0·07
139,427	1,620	3,607	142,654	106	0·25	94·91	7·19	0·01	7·94	49·93	41·73	2·25	51·08	48·92	100	96·45	1·02	2·53	100·13	0·13
2,523	593	516	3,456	..						69·29	15·19	2·37	80·70	19·30	100	70·06	17·13	6·81	100	..
140,666	2,213	3,839	146,110	106	..	..	..	..	..	..	..	..	51·74	48·26	100	96·97	1·41	2·62	100·13	0·13
133,773	2,210	6,141	124,135	107	0·20	89·71	9·15	0·04	7·92	45·11	31·24	2·05	51·97	48·03	100	90·94	1·18	2·03	100·14	0·14
2,533	1,001	654	3,188	6						47·09	40·00	3·20	77·08	24·98	100	67·96	19·79	12·26	100·01	0·01
136,306	3,216	6,799	126,673	202	..	..	..	..	..	..	..	..	51·79	48·21	100	94·52	1·69	3·79	100·14	0·14
79,356	1,400	1,186	80,941	201	2·50	90·96	5·03	0·17	4·94	46·95	45·43	5·69	50·98	49·02	100	97·74	1·59	1·47	100·34	0·34
3,194	1,054	314	5,062	4						47·97	44·97	5·10	84·60	15·40	100	57·07	29·04	13·90	100·01	0·01
82,450	3,054	1,500	86,003	205	..	..	..	..	..	..	..	..	51·85	48·14	100	94·80	2·19	2·21	100·20	0·20
19,681	1,005	1,373	76,559	203	2·42	97·68	5·00	0·11	4·23	46·21	44·51	7·16	51·51	48·49	100	96·75	1·63	1·61	100·43	0·43
3,269	1,439	309	5,016	5						49·04	43·05	6·02	65·04	34·96	100	64·68	28·67	7·32	100·19	0·19
73,973	2,329	1,647	87,950	205	..	..	..	..	..	..	..	..	52·33	47·67	100	88·79	2·74	1·97	100·43	0·43
59,736	679	1,189	72,797	200	7·03	86·32	20·36	0·06	6·23	70·96	22·79	6·45	50·93	49·07	100	92·34	0·16	6·20	101·74	1·74
12,153	1,466	1,213	14,790	..						66·09	20·71	5·17	70·95	29·05	100	81·91	9·86	8·23	100	..
71,951	2,205	2,402	87,587	200	..	..	..	..	..	..	..	..	62·47	37·53	100	89·92	5·23	6·08	101·05	1·05
14,911	319	307	16,228	455	0·59	96·74	19·78	7·78	0·38	82·20	14·73	3·08	49·78	50·20	100	94·24	1·99	2·77	102·55	2·55
2,147	435	138	2,719	..						77·95	13·63	2·08	79·16	20·84	100	79·05	15·94	5·01	100	..
17,058	1,152	738	18,947	455	..	..	..	..	..	..	..	..	53·62	46·38	100	89·68	4·64	3·95	102·27	2·27
120,388	2,106	2,324	124,606	399	0·08	93·81	8·41	0·44	7·45	67·85	24·53	2·69	51·94	48·16	100	96·66	1·46	1·86	100·21	0·21
4,223	704	309	5,237	1						69·91	20·26	2·43	80·61	19·32	100	82·07	10·39	10·06	100·04	0·04
124,611	2,810	2,633	130,043	400	..	..	..	..	..	..	..	..	52·36	47·64	100	90·88	1·98	2·14	100·21	0·21
126,127	2,696	1,994	130,797	373	0·07	94·29	8·28	0·23	7·00	64·09	33·49	2·42	52·18	47·81	100	96·46	1·53	1·53	100·44	0·44
4,079	2,416	837	7,374	3						62·20	37·47	2·25	81·01	8·99	100	55·34	30·51	11·05	100·04	0·04
130,206	8,054	2,831	141,091	376	..	..	..	..	..	..	..	..	54·27	45·73	100	94·69	3·28	2·03	100·42	0·42
93,177	2,471	3,479	99,127	122	0·03	91·76	12·02	0·03	5·07	69·28	25·66	1·66	51·23	48·77	100	93·99	2·39	2·61	100·12	0·12
1,503	943	213	2,584	..						59·25	32·41	1·54	64·31	35·69	100	70·01	21·79	8·20	100	..
94,680	4,054	3,687	101,691	122	..	..	..	..	..	..	..	..	51·26	48·44	100	92·23	3·83	3·94	100·12	0·12
98,415	5,132	3,749	105,816	131	0·03	91·02	10·45	0·02	5·99	61·70	36·06	1·44	51·43	48·57	100	93·07	4·75	2·18	100·12	0·12
3,299	1,626	767	7,201	1						57·10	32·37	1·29	60·46	39·54	100	69·91	21·82	8·27	100	..
101,714	6,757	4,516	112,017	132	..	..	..	..	..	..	..	..	52·06	47·93	100	90·21	5·87	3·92	100·12	0·12
79,900	1,332	3,093	84,325	326	0·20	95·03	13·13	0·07	7·99	73·89	23·06	2·85	53·93	46·07	100	95·45	2·18	2·37	100·40	0·40
30,791	5,373	4,130	39,124	97						50·05	41·79	3·02	42·94	57·18	100	69·00	17·41	13·60	100·13	0·13
110,691	6,800	7,209	114,437	373	..	..	..	..	..	..	..	..	51·00	49·00	100	89·23	5·46	6·31	100·23	0·23
87,959	1,441	3,233	86,713	305	0·18	92·37	76·72	0·03	7·05	74·40	22·33	3·25	54·73	45·27	100	96·02	1·24	2·74	100·42	0·42
18,656	3,745	3,253	21,914	69						71·05	20·06	2·94	66·32	33·78	100	69·26	16·96	14·08	100·37	0·37
96,615	5,186	6,486	108,329	146	..	..	..	..	..	..	..	..	58·92	46·08	100	89·67	4·28	6·05	100·41	0·41
85,423	1,150	1,317	87,890	155	0·03	93·38	7·91	0·05	7·04	80·51	18·60	0·69	52·67	47·23	100	96·66	1·07	1·86	100·29	0·29
1,170	61	18	949	..						57·02	18·09	0·66	58·25	11·05	100	68·25	24·50	7·25	100	..
86,593	1,211	1,335	88,079	102	..	..	..	..	..	..	..	..	52·40	47·60	100	96·06	1·62	1·32	100·23	0·23
88,148	1,028	1,206	70,899	121	0·03	86·97	7·47	0·09	5·25	79·80	19·21	1·15	52·54	47·46	100	96·23	1·09	1·97	100·24	0·24
542	113	26	680	..						79·70	18·40	1·06	87·05	12·95	100	79·70	21·03	8·24	100·96	0·96
88,689	1,139	1,232	71,579	121	..	..	..	..	..	..	..	..	52·77	47·23	100	96·29	1·60	2·00	100·20	0·20

Districts and Circles.	Years.	Persons primarily vaccinated. Caste. Christians.	Hindus.	Musalmáns.	Pársis.	Other Castes.	Age. N.—Number. S.—Successful. Under 1 year.	Between 1 and 6 years.	All other Ages.	Total Number of Persons operated on. P.—Primary Vaccinations. R.—Revaccinations. Sex. Males.	Females.	Total.
Cutch	1882-83	2	15,479	3,136	2	..	N. 12,026 S. 11,959	7,773 7,737	839 809	P. 10,510 R. 302	10,109 77	20,619 379
										10,812	10,186	20,998
	1883-84	1	12,854	4,964	4	..	N. 11,076 S. 10,958	6,793 6,734	976 960	P. 9,530 R. 240	9,264 38	18,794 278
										9,770	9,302	19,072
Aden, Bushire and Muscat.	1882-83	9	6	895	4	60	N. 133 S. 125	353 332	474 316	P. 641 R. 4	210 1	851 5
										645	209	854
	1883-84	..	8	1,161	..	32	N. 137 S. 131	641 598	493 353	P. 765 R. 4	415 2	1,180 6
										769	417	1,186
British Army	1882-83	100	182	12	1	7	N. 301 S. 241	62 41	8 6	P. 317 R. 125	150 117	467 242
										442	267	709
	1883-84	177	239	55	1	36	N. 458 S. 406	43 42	16 16	P. 367 R. 960	230 140	597 1,100
										1,127	370	1,697
Native Army	1882-83	164	3,136	1,455	26	796	N. 2,790 S. 2,696	660 632	537 510	P. 2,713 R. 2,984	2,704 497	4,967 3,481
										5,647	3,731	9,378
	1883-84	85	2,123	1,006	12	459	N. 2,041 S. 2,020	475 468	185 147	P. 2,053 R. 2,439	1,665 416	3,668 2,855
										4,492	2,081	6,573
Total for the Bombay Presidency.	1882-83	3,519	600,906	126,734	2,035	57,112	N. 485,661 S. 468,594	294,141 279,132	22,404 20,019	P. 406,054 R. 41,058	387,156 37,447	793,206 78,505
										450,112	424,609	874,721
	1883-84	4,358	629,932	131,647	2,004	59,024	N. 504,382 S. 484,495	288,982 265,113	24,161 19,746	P. 427,996 R. 56,684	393,362 30,190	821,358 86,874
										484,680	423,552	908,232

12. The above table specifies, by districts and circles, caste, age, sex and result in primary vaccinations, and sex and result in revaccinations and total operations as contrasted with those in 1882-83. It will be observed that there is an improvement in the work over that of last year as regards numbers, though the percentages in each detail are somewhat lower.

Particulars of vaccine operations by caste, age, sex and result, with their percentages according to Districts and Circles.

13. During the year there were primarily vaccinated 4,358 Christians, 629,932 Hindus, 131,647 Musalmáns, 2,004 Pársis, and 59,024 persons of Other Castes, and for all, except Christians and Pársis, the numbers are higher than last year, the respective percentages being 0·53, 76·17, 15·92, 0·24 and 7·14; the percentage for Hindus is, however, higher by only 0·41. As regards each district and circle, Christians have a lower percentage in all, except Baroda and Cutch. The percentages for Hindus are lower in the Southern Deccan, Western Gujárat, Sind, Cutch, and the Native Army; and for Musalmáns they are lower in the Southern Deccan, Sind, Baroda, Aden, Bushire and Muscat and the British Army. Pársis have a higher percentage in the Northern Deccan, Western Gujarát and Cutch by 0·01 each, and in the Presidency Circle by 0·80. The percentages for Other Castes are higher in the Northern Deccan, Aden, Bushire and Muscat, and the British and Native Army only.

Caste.

RATES PER CENT.

Results.				Excess of Operations over Persons.	Persons primarily vaccinated.							Total Number of Persons operated on			Results.				Excess of Operations over Persons.
					Caste.					Ages.			Sex.						
Successful.	Unsuccessful.	Unknown.	Total.		Christians.	Hindus.	Musalmans.	Parsis.	Other Castes.	Under 1 year.	Between 1 and 6 years.	All other Ages.	Males.	Females.	Total.	Successful.	Unsuccessful.	Unknown.	Total.	
58,479	257	27	58,773	154	0·01	73·97	24·91	0·01	..	58·32	37·70	3·98	50·97	49·03	100	99·22	0·50	0·28	100·25	0·73
5,840	92	6	5,938							57·90	37·90	3·91	49·99	50·01	100	79·80	17·43	2·77	100	
10,719	200	85	11,112	154	..	..	..	..	..	..	..	..	51·59	48·41	100	98·06	0·95	0·21	100·73	0·73
13,656	219	38	13,913	28	0·01	72·37	26·40	0·02	..	58·08	36·18	5·74	50·73	49·27	100	99·13	0·73	0·15	100·43	0·43
224	59	..	283							58·17	35·91	5·92	49·91	50·09	100	87·06	12·50	..	100	
13,989	252	38	14,189	82	..	..	..	..	..	..	..	..	51·29	48·71	100	99·06	0·89	0·15	100·43	0·43
754	122	66	942	1	0·03	0·03	91·93	0·42	0·29	14·00	30·82	49·27	66·01	33·99	100	79·25	12·60	8·15	100·39	0·50
3	3	0	6							12·20	32·47	55·33	80·00	20·00	100	..	50·00	50·00	100	
754	125	66	948	1	..	..	..	..	..	..	..	..	66·98	33·02	100	77·72	12·50	9·39	100·39	0·50
925	157	121	1,203	2	..	0·67	96·67	..	2·66	13·97	57·37	28·66	67·36	34·64	100	77·02	12·21	10·07	100·17	0·17
6	1	0	7							10·91	46·04	43·05	66·67	33·33	100	66·67	33·33	..	100	
920	159	121	1,210	2	..	..	..	..	..	..	..	..	67·37	34·63	100	76·97	12·21	10·02	100·17	0·17
390	34	2	426	24	4·95	45·52	2·98	0·23	1·74	87·31	10·70	1·99	52·91	46·02	100	97·61	2·49	0·50	105·97	5·97
243	306	9	549	7						84·98	10·20	4·82	73·41	21·59	100	61·44	37·69	1·47	101·29	1·29
723	242	10	975	37	..	..	..	..	..	..	..	..	69·93	32·99	100	76·59	22·35	1·06	100·38	3·38
466	21	1	488	1	33·61	47·89	13·07	0·20	5·23	87·17	9·05	3·78	52·71	46·29	100	93·76	6·04	0·20	100·20	0·20
619	299	..	1,021	2						83·60	8·43	7·97	83·25	14·77	100	62·35	29·65	..	100·79	0·79
1085	422	1	1,513	9	..	..	..	..	..	..	..	..	74·85	25·17	100	77·04	22·89	0·07	100·00	0·00
4,426	444	176	5,056	71	3·29	69·28	28·77	0·02	4·14	76·00	15·03	10·77	53·20	44·80	100	89·96	7·48	2·53	101·45	1·43
5,014	1,079	33	6,126	95						79·06	13·47	6·72	80·45	19·55	100	80·34	17·54	0·41	100·54	0·56
9,440	1,523	209	11,182	166	..	..	..	..	..	..	..	..	63·24	36·76	100	84·50	13·62	1·88	100·00	0·00
8,173	440	144	8,757	19	2·30	57·68	37·26	0·34	12·42	82·21	13·77	5·66	55·49	44·51	100	84·09	11·52	3·89	100·91	0·61
4,567	1,290	10	5,867	11						79·80	9·90	2·94	60·28	14·62	100	55·06	44·59	0·35	100·04	0·04
4,800	1,725	154	6,574	30	..	..	..	..	..	..	..	..	69·69	31·01	100	71·75	25·90	2·25	100·46	0·46
727,743	54,222	19,539	794,504	2,239	0·18	75·76	16·00	0·23	7·23	61·20	33·87	2·93	51·93	48·07	100	90·15	1·61	2·24	100·39	0·39
69,630	13,211	7,343	90,179	60						59·13	34·49	2·53	61·74	38·26	100	69·90	19·70	11·04	100·70	0·70
698,162	37,042	25,670	801,078	2,267	..	..	..	..	..	..	..	..	52·43	47·58	100	94·12	2·97	2·61	100·26	0·26
791,223	57,266	26,713	875,202	2,423	0·53	76·37	15·92	0·24	7·14	60·96	36·13	2·97	51·78	48·24	100	90·69	1·61	2·50	100·29	0·29
97,657	13,057	6,939	97,653	139						59·58	34·86	2·53	64·50	35·50	100	69·81	19·72	11·06	100·23	0·23
823,880	30,430	27,981	882,491	2,561	..	..	..	..	..	..	..	..	52·56	47·43	100	93·79	2·15	2·06	100·29	0·29

Age.

14. The age details are compiled for three periods, viz., under 1 year, between 1 and 6 years, and above 6 years. The numbers under each period primarily vaccinated were respectively 504,282, 298,582 and 24,101 against 485,661, 284,141 and 22,404 during the preceding year. The number of infants successfully vaccinated was 484,405, of children between 1 and 6 years 285,172 and of persons of other ages 21,746. Thus out of every 100 persons primarily vaccinated, there were 60·98 infants, of whom 58·58 were successfully vaccinated. When compared with the preceding year, it is, however, lower by 0·57; but this is only apparent, because the difference between the numbers vaccinated and the successful cases is higher by 0·15 per cent.

Infants successfully vaccinated as compared with those available for vaccination by Districts and Circles at the rate of 31 per mille of population.

15. In para. 91 of the Report for 1878-79 a rate of 31 per thousand of population is laid down as that of infants available for vaccination. At this rate, and on the total population of 25,615,528, there were successfully vaccinated 61·00 per cent. against 59·01 in 1882-83, 58·35 in 1881-82, 49·27 in 1880-81, 39·78 in 1879-80, and 37·89 in 1878-79. Thus every year is characterised by progress in the protection afforded to infants. The subjoined table shows the number of infants protected out of those available for vaccination (at the rate of 31 per mille of population)

by districts and circles, as likewise the protection of children between one and six years old:—

Districts and Circles.	Population.	Children under 1 year available for Vaccination at 31 per 1,000.	Years.	Children under 1 year vaccinated successfully.		Children between 1 and 6 Years vaccinated successfully.	
				Number.	Ratio per 100 on Infants.	Number.	Ratio per 100 on Total Vaccinated.
1. Baroda ...	2,185,000	67,735	1882-83	52,737	77·86	12,240	18·09
			1883-84	54,315	80·19	13,081	18·49
2. Sind ...	2,542,976	78,832	1882-83	58,830	74·63	18,292	21·78
			1883-84	61,311	77·77	18,113	20·98
3. Cutch ...	512,084	15,874	1882-83	11,939	75·21	7,732	37·80
			1883-84	10,938	68·91	6,734	35·81
4. Western Gujarát ...	2,920,377	90,532	1882-83	58,668	64·79	32,084	32·41
			1883-84	60,062	66·34	35,095	33·37
5. Northern Deccan ...	4,384,856	135,930	1882-83	84,421	62·11	55,277	38·14
			1883-84	89,660	65·92	47,900	32·63
6. Eastern Gujarát ...	4,162,314	129,032	1882-83	75,628	58·62	41,403	33·06
			1883-84	80,936	62·73	42,200	32·47
7. Presidency Circle ...	772,196	23,929	1882-83	14,940	62·43	4,641	20·71
			1883-84	12,331	51·45	2,157	13·63
8. Southern Deccan ...	5,091,383	157,833	1882-83	68,804	43·59	64,056	45·59
			1883-84	74,923	47·47	85,204	49·00
9. Konkan	3,008,477	93,263	1882-83	38,645	41·44	38,501	44·07
10. Aden, Bushire, and Muscat	*34,860	1,081	1883-84	36,832	39·49	33,661	43·63
			1882-83	125	11·56	313	32·47
			1883-84	131	12·12	559	46·54
11. Native Army ...	...	...	1882-83	3,506	...	622	12·47
			1883-84	2,020	...	306	9·90
12. British Army ...	...	...	1882-83	341	...	41	10·20
			1883-84	406	...	42	8·45
Total ...	25,615,728	794,081	1882-83	468,594	59·01	273,132	34·48
			1883-84	484,405	61·00	285,172	34·48

* Of Aden only.

The Southern Deccan holds the same place as last year in this respect, though there is a rise in the percentage of infants protected. Baroda stands first, having a percentage of 80·19 infants protected instead of 77·86 last year. There is a rise in the percentages of infants protected in all the districts and circles, except in the Konkan, Cutch and the Presidency Circle, where the fall amounts to 10·88 per cent. The highest rise is observed in Eastern Gujarát to the extent of 4·11 per cent.

Sex.

16. There were 427,996 males and 398,969 females primarily vaccinated. The revaccinated were respectively 36,684 and 20,190 and the totals of persons operated on were 464,680 males and 419,159 females. In primary vaccinations the sex percentages are respectively 51·76 and 48·24 against 51·63 and 48·37 last year; in revaccinations they are 64·50 and 35·50 against 61·74 and 38·26; and in total operations they are 52·58 and 47·42 against 52·42 and 47·58.

Results.

17. There is a slight fall in the percentage of "successful", owing to there being more "unsuccessful" and "unknown" cases. In primary vaccinations there were 791,323, or 95·69 per cent., successful; 17,363, or 1·81 per cent., unsuccessful; and 20,712, or 2·50 per cent., unknown. Secondary operations amounted to 2,433, or 0·29 per cent. The percentages for 1882-83 were respectively 96·15, 1·51, 2·34 and 0·29.

There is a fall in successful revaccinations to the extent of 3·59 per cent. The three kinds of result afforded the respective percentages of 66·21, 22·73 and 11·06 against 69·80, 19·16 and 11·04 in the previous year. In 129 cases, or 0·23 per cent., the revaccinations were repeated; last year they were repeated in 68 instances.

Of total operations 828,980, or 93·79 per cent., were successful; 30,420, or 3·15 per cent., were unsuccessful; and 27,001, or 3·06, were unknown. Last

year the percentages were respectively 94·12, 2·87 and 3·01. The excess of operations over persons was 2,562, or 0·29 per 100, against 2,367, or 0·28 per cent., in 1882-83. In calculating the percentages of unsuccessful cases these numbers have been excluded.

Percentages of success reviewed by Districts and Circles.

18. The following table shows by districts and circles the percentages of success in primary vaccinations and revaccinations contrasted with those for the previous year :—

No.	Districts and Circles.	Percentages of Success in Primary Vaccinations.		Percentages of Success in Revaccinations.	
		1882-83.	1883-84.	1882-83.	1883-84.
1	Cutch Circle	99·32	99·12	70·80	87·30
2	Northern Deccan Registration District ...	97·76	97·70	64·97	67·90
3	Eastern Gujarát Registration District ...	96·68	96·92	52·77	55·34
4	Konkan Registration District	97·14	96·75	57·37	64·08
5	Baroda Circle	90·67	96·35	68·27	73·39
6	Southern Deccan Registration District ...	96·45	95·34	76·36	67·95
7	Sind Registration District	95·15	94·92	68·90	68·36
8	Presidency Circle	92·54	94·24	81·91	79·05
9	British Army	97·01	93·76	61·44	61·35
10	Western Gujarát Circle	93·10	91·67	70·31	68·91
11	Native Army...	88·29	84·59	56·24	55·06
12	Aden, &c.	78·22	77·02	.....	66·67
	Average for the whole Presidency ...	96·15	95·69	69·80	*66·21

In the "successful" primary vaccinations the percentages are lower than last year in all the districts and circles except in Eastern Gujarát and the Presidency Circle, owing to there being more "unsuccessful" and "unknown" cases than last year.

Rate per mille of population protected by Primary Vaccinations by Districts and Circles.

19. The number of persons primarily vaccinated successfully out of every 1,000 by districts and circles, as compared with 1882-83, is shown in the table below :—

No.	Districts and Circles.	Population of Registration Districts and Circles according to the Census of 1881.	Total Number of Persons primarily vaccinated successfully.		Number of Primary successful Vaccinations per 1,000 of Population.	
			1882-83.	1883-84.	1882-83.	1883-84.
1	Cutch	512,084	20,479	18,638	39·99	36·40
2	Western Gujarát Circle	2,920,377	92,177	96,415	31·56	33·01
3	Southern Deccan Registration District.	5,091,383	197,427	165,775	38·99	32·56
4	Sind Registration District	2,542,976	79,906	81,959	31·42	32·23
5	Northern Deccan Registration District.	4,384,856	141,671	139,151	32·31	31·73
6	Baroda	2,185,005	65,423	68,146	29·94	31·19
7	Eastern Gujarát Registration District...	4,162,314	120,088	126,127	28·85	30·30
8	Aden, &c.	34,860	754	925	21·06	26·53
9	Konkan Registration District	3,008,477	78,956	75,682	26·01	25·16
10	Presidency Circle...	773,196	20,736	14,911	26·82	19·28
11	British Army	.....	399	466	...	...
12	Native Army	.....	4,438	3,128	...	...
	Total ...	25,615,528	761,745	791,323	29·74	30·89
	In British Territory	16,503,663	493,264	504,496	29·89	30·57
	In Native States...	9,111,865	268,481	286,827	29·46	31·49

The rate of protection is higher than last year in all the districts and circles, except in Cutch, Northen Deccan, Presidency Circle and Konkan. It is lowest in the Konkan and Presidency Circle. In British and Native territory it is respectively 30·57 and 31·49 against 29·89 and 29·46 per mille of population in the

previous year. On the whole, 30·89 persons of all ages per every 1,000 of population, against 29·74 last year, 27·54 in 1881-82, 24·60 in 1880-81, and 22·26 in 1879-80, were primarily vaccinated successfully.

Vaccinations by Establishments.

20. The progress of vaccination by different establishments will be seen from the subjoined table :—

Establishments.	Persons primarily vaccinated.				Persons revaccinated.				Total Number of Persons operated on.			
	1882-83.	1883-84.	Increase.	Decrease.	1882-83.	1883-84.	Increase.	Decrease.	1882-83.	1883-84.	Increase.	Decrease.
7 Government Vaccinators.. ..	5,350	6,490	1,134 / 21·20	..	94	526	432 / 459·21	..	5,500	6,950	1,570 / 29·46	..
39 Municipal	60,208	39,559	..	5,649 / 9·38	32,716	8,926	..	12,890 / 61·15	37,924	48,385	..	18,539 / 27·62
1 Cantonment	1,471	1,461	..	7 / 0·47	342	252	..	90 / 26·22	1,813	1,717	..	96 / 5·29
289 Local Fund	419,822	441,180	21,358 / 5·09	..	31,612	50,227	18,615 / 58·23	..	451,434	471,407	39,973 / 8·85	..
146 Native States	266,390	284,180	17,790 / 6·72	..	5,183	10,553	5,370 / 103·61	..	271,463	294,733	23,270 / 8·57	..
160 Dispensaries	29,770	29,956	1,186 / 4·23	..	2,413	2,323	90 / 3·73	..	31,205	32,511	3,306 / 4·15	..
British Army	402	497	95 / 23·63	..	543	1,009	467 / 86·16	..	944	1,506	562 / 59·53	..
Native Army	4,267	5,639	1,372 / 32·15	..	3,591	3,846	255 / 7·10	..	7,858	9,544	1,686 / 21·45	..
Total ..	787,680	829,961	43,705 / 5·26	6,244 / 0·87	86,005	86,674	6,369 / 9·06	16,000 / 24·08	858,711	868,838	86,787 / 5·45	21,659 / 2·53

In primary vaccinations an increase is observed under all, except the Municipal, and Cantonment establishments and the British Army, amounting to 41,703, or 5·26 per cent., the maximum rate of increase being 21·53 per cent. under Government establishment. In revaccinations there is a slight increase of 6,369,, or 9·58 per cent. under Government, Native States, Dispensaries and British Army, but there is a considerable decrease, amounting to 16,000, in the remainder, or 24·06 per cent. Taking the two kinds of operations together, there is an increase of 46,787, or 5·45 per cent., and a decrease of 21,659, or 2·53 per cent., in the work of the Municipal and Cantonment vaccinators and in the Native Army.

Results in Vaccine Operations by Establishments.

21. The results in primary vaccinations, revaccinations, and total operations, as analysed by establishments, are as under :—

Establishment.	Year.	Results in Primary Vaccinations.					Results in Revaccinations.					Results in Total Operations.				
		Successful.	Unsuccessful.	Unknown.	Total.	Excess Operations.	Successful.	Unsuccessful.	Unknown.	Total.	Excess Operations.	Successful.	Unsuccessful.	Unknown.	Total.	Excess Operations.
7 Government Vaccinators.	1881-82	5,295	17	24	5,336	..	94	..	..	94	..	5,319	17	24	5,360	..
	1882-83	5,350	69	131	5,550	15	475	50	6	531	..	5,825	174	190	6,081	15
39 Municipal Vaccinators.	1882-83	61,808	1,627	2,025	65,460	409	27,656	2,613	2,284	32,737	1	79,457	4,230	4,625	88,294	470
	1883-84	36,670	1,031	1,811	40,512	553	6,610	1,766	954	9,330	6	83,080	2,866	2,765	88,841	559
1 Cantonment	1882-83	1,450	16	5	1,471	..	338	107	2	342	..	1,668	118	7	1,813	..
Vaccinator.	1883-84	1,449	7	9	1,465	..	131	120	1	252	..	1,580	127	10	1,717	..
289 Local Fund Vaccinators.	1882-83	407,623	4,827	8,414	420,864	1,054	21,253	6,196	4,163	31,612	78	428,909	10,903	12,606	452,536	1,089
	1883-84	426,466	5,124	10,109	441,740	1,060	19,635	6,755	4,024	30,414	87	446,043	12,479	14,133	472,654	1,147
146 Native States Vaccinators.	1882-83	254,072	6,050	6,745	266,876	596	3,790	1,051	339	5,183	..	257,862	7,159	7,084	272,059	596
	1883-84	269,586	7,094	7,542	284,454	644	7,241	2,290	1,037	10,568	15	276,659	10,274	8,579	295,302	659
160 Dispensaries ..	1882-83	26,722	1,198	924	28,855	93	1,040	1,059	313	2,407	2	27,798	2,257	1,237	31,262	97
	1883-84	27,459	1,473	1,216	30,157	141	1,381	901	550	2,837	3	28,840	2,363	1,471	32,674	143
British Army	1882-83	390	34	2	426	24	535	399	6	540	1	725	543	10	979	25
	1883-84	466	21	10	496	1	619	306	..	1,015	3	1,085	430	11	1,515	4
Native Army	1882-83	4,420	444	778	5,642	71	2,914	1,372	13	3,401	20	6,457	2,016	131	8,620	91
	1883-84	3,139	443	348	3,717	19	1,567	1,280	10	2,857	11	4,666	1,716	154	6,574	30
Total for the Bombay Presidency.	1882-83	761,745	14,222	19,328	794,505	2,256	57,616	12,797	7,342	80,573	60	808,165	27,043	25,870	861,078	2,367
	1883-84	797,800	17,593	20,715	839,398	2,423	37,807	13,627	6,789	57,903	129	839,950	30,455	27,003	896,401	2,552

In primary vaccinations the number of successful cases was more than last year for each establishment, except the Municipal, Cantonment and the Native Army, though the number of unsuccessful cases was also more. The number

of unknown cases outnumber the unsuccessful in all except the Native State, Dispensary, and the British and Native Army, and are more than last year in all establishments, except in Municipal and the Army generally.

In revaccinations the successful cases are less than last year in all establishments, except the Government, Native States, Dispensary and the British Army, owing to the less number of revaccinations, but among the municipal vaccinators they were nearly three times less than in 1882-83. The intensity of the protective power of primary vaccine operations may be judged by the unsuccessful revaccinations. The unsuccessful cases are more, Municipal, Dispensaries and Native Army excepted, and the "unknown" are less than in 1882-83 on the whole and also in Municipalities, Cantonment, Local Fund, Dispensaries and the Army generally.

Percentages of success reviewed by Establishments.

22. The percentages of successful casses in each kind of operation by establishments are given below:—

Establishments.		Government.	Municipal.	Cantonment.	Local Fund.	Native States.	Dispensaries.	British Army.	Native Army.	For the whole Presidency.
In Primary Vaccinations.										
Percentage of success	1882-83	99·22	94·78	98·37	97·10	95·42	92·92	97·01	88·99	96·15
	1883-84	96·33	95·15	98·91	96·65	94·87	91·51	93·76	84·59	95·09
In revaccinations.										
Percentage of success	1882-83	100	77·70	69·59	67·17	73·18	43·74	61·44	56·24	69·80
	1883-84	88·25	74·89	51·98	64·74	68·62	54·69	61·35	55·06	66·21

In primary vaccinations the percentages are higher than in the preceding year in Municipal and Cantonment establishments only. The highest percentage is 98·91 in Cantonment and the lowest is 84·59 in the Native Army. The next highest is 96·65 in Local Fund and the next lowest is 91·51 in Dispensaries. In revaccinations the lowest percentage is 51·98 in Cantonment and the highest is 88·25 under Government.

Work of Establishments by Districts and Circles.

23. The work of the different establishments by districts and circles is as follows:—

Work of Government Vaccinators.

24. There are 2 vaccinators for the cantonments of Rájkot and Deesa, paid from Provincial Funds, who work under the Superintendent of Vaccination, Western Gujarát Circle. Half the cost of vaccination in Deesa is borne by the Cantonment Committee. Besides these 2, there are 3 others under the Station Staff Surgeons for the military stations of Mhow, Neemuch and Nasirabad, paid from "Military Funds". Their work is included under the head of Native Army and Camp Followers. The Rájkot and Deesa vaccinators work among a population of 126,019 souls in an area of 1135·4815625 square miles. There were 6,400 persons primarily vaccinated and 536 revaccinated, against 5,266 and 94 in the previous year. The successful cases were, respectively, 6,165 and 473, or 96·33 and 88·25 per cent: so, taking the two operations together, 52·67 per thousand of population were protected against 42·21 last year. The total cost was Rs. 504. The cost of each successful case was anna 1 and pies 3, or 3 pies less than last year. In primary vaccinations the unsuccessful cases were 69 and of unknown 184. In revaccinations the unsuccessful and the unknown were 55 and 8. Secondary operations, after the failure of the first, were performed on 15 persons. Each vaccinator averaged 3,468 persons.

Work of Cantonment Vaccinators.

25. There is only 1 vaccinator for the cantonments of Poona and Kirkee, which cover an area of 8·8 square miles and contain a population of 37,381 persons. His work is supervised by the Deputy Sanitary Commissioner, Northern Deccan Registration District. He primarily vaccinated 1,465 and revaccinated 252 persons. Last year these numbers were respectively 1,471 and 342. In primary vaccinations 1,449, or 98·91 per cent., were successful, and in revaccinations 131,

or 51·98 per cent., were successful. The rate of protection per mille of population was 42·27. Last year it was 45·16. The total cost was Rs. 654 annas 4 and pies 6, or annas 6 and pies 8 for each successful case; last year it was annas 3-9. There were 7 unsuccessful and 9 unknown cases under primary vaccinations, and among revaccinations they were respectively 120 and 1. None were operated on more than once.

Work of Municipal Vaccinators.

26. The following table gives the progress of vaccination by districts and circles under municipal vaccinators :—

Division and Circles.	Persons primarily vaccinated.				Persons revaccinated.				Total Number of Persons operated on.			
	1882-83.	1883-84.	Increase.	Decrease.	1882-83.	1883-84.	Increase.	Decrease.	1882-83.	1883-84.	Increase.	Decrease.
Northern Deccan Registration District	11,502	12,227	635	...	1,272	711	...	561	12,864	12,938	74	...
Southern Deccan Registration District	6,562	9,569	3,007	...	293	796	503	...	6,855	10,365	3,510	...
Konkan Registration District ..	3,218	2,202	...	1,016	1,164	327	...	837	4,382	2,529	...	1,853
Presidency Circle	22,460	15,873	...	6,580	14,452	2,345	...	12,107	36,855	18,168	...	18,687
Eastern Gujarát Registration District	11,543	10,615	...	928	557	576	19	...	12,100	11,191	...	909
Sind Registration District ...	9,292	8,542	...	750	4,073	4,067	...	906	14,265	12,609	...	1,656
Aden	598	581	...	17	5	4	...	1	602	585	...	18
Total ...	65,208	59,559	3,642	9,291	22,716	8,826	522	14,412	87,924	68,385	3,584	23,122

In primary vaccinations a decrease of 9,291 is observed in all the districts, except the Northern and Southern Deccan, where the increase amounts to only 3,642. In revaccinations there is an increase of 522 in the Southern Deccan and Eastern Gujarát only; this increase is small when compared with the very large decrease of 14,412 in other districts, of which in the Presidency Circle alone there is a decrease of 12,107. The decrease in the Konkan is partly due to the abolition of the Panvel and Uran municipal vaccinator from the 1st September 1883 and to a falling off in the work done by the Thána vaccinator, In the Presidency Circle the decrease is also partly attributable to the large amount of work in the previous year owing to the prevalence of small-pox. The decrease in the Eastern Gujarát occurred in the city of Surat and in Sind in the town of Karáchi. On the whole, taking the two operations together, there is a net decrease of 19,539. The Kárwár Municipality entertained the services of a vaccinator and the Surat Municipality of an additional vaccinator and a peon. There are in all 39 vaccinators, or 1 more than last year, who worked amongst a population of 1,807,903 over an area of 114·121875 square miles. They returned 59,559 primary vaccinations and 8,826 revaccinations, of which there were, respectively, 56,670 or 95·15, and 6,010 or 74·89 per cent. successful. The percentage of success attained is equal to 35·00 per mille of population against 43·76 last year. The total cost was Rs. 25,750 anna 1 and pies 11, equal to annas 6 and pies 6, or anna 1 and pies 7 more than in the preceding year, per each successful case. The unsuccessful and unknown were, respectively, 1,631 and 1,811 and 1,268 and 954 under each kind of operation. There were 553 secondary operations, and in 6 cases the revaccinations were repeated. Each vaccinator, on an average, operated on 1,753 persons. Vaccination is carried on by the dispensary medical officers of those towns where there are no vaccinators, and the rural vaccinator performs the work where there is no dispensary. It would be well if all towns having a population of 10,000 had special vaccinators, as the dispensary medical officers cannot devote sufficient time to the details of the work. It should at least be arranged that each town circle which compiles birth and death returns should permanently entertain a vaccinator.

Necessity for Special Vaccinators in Towns having a population of 10,000.

Districts.	Persons primarily vaccinated.				Persons revaccinated.				Total Number of Persons operated on.			
	1882-83.	1883-84.	Increase.	Decrease.	1882-83.	1883-84.	Increase.	Decrease.	1882-83.	1883-84.	Increase.	Decrease.
Northern Deccan Registration District ..	123,365	121,156	..	2,149	719	1,094	375	..	124,024	122,250	..	1,774
Southern Deccan Registration District ..	87,365	104,175	16,810	..	2,279	2,747	469	..	89,643	106,922	17,279	..
Konkan Registration District	64,056	62,308	..	1,748	2,320	2,599	279	..	66,376	64,907	..	1,469
Eastern Gujarát Registration District ..	75,671	81,086	5,415	..	1,620	6,492	4,872	..	77,205	87,582	10,287	..
Sind Registration District	69,421	72,451	3,030	..	24,675	17,395	..	7,280	94,096	89,846	..	4,250
Total ..	419,822	441,180	25,255	3,997	31,612	30,327	5,995	7,280	451,434	471,507	27,566	7,493

Work of Local Fund Vaccinators.

27. The above table shows the work of Local Fund vaccinators for each of the five registration districts. There is an increase in primary vaccinations in all the districts, except the Northern Deccan and Konkan, of 25,255. In revaccinations there is a decrease of 7,280 in Sind only and an increase of 5,959 in the other 4 districts. The decrease in the Northern Deccan is partly owing to a falling off in the work performed in the Khándesh Collectorate on account of the general unhealthiness prevalent throughout the district, and in the Konkan on account of the sickness of the vaccinators of the Thána and Kolába Districts. In Sind nearly half the decrease under revaccinations took place in the Shikárpur District, a proof of the general unwillingness of the people to submit to the operation. This year there were 249 vaccinators against 248 in the previous year, as 1 additional vaccinator in the Sátára Collectorate was employed during the year. There are now only 4 vaccinators (1 in Broach and 3 in Karáchi) who have more than one rural circle to attend to. It is hoped that the Collectors of Broach and Karáchi will make provision for additional vaccinators, more especially as they have to contribute nothing towards the pension fund of the vaccinators, as per Accountant General's Circular No. $\frac{L.F.}{17}$, dated 2nd June 1883. The Local Fund vaccinators worked over an area of 124195·50375 square miles and amongst a population of 14,666,151. They primarily vaccinated 441,180 and revaccinated 30,327 persons. The number primarily vaccinated successfully was 426,408, or 96·65 per cent., and those revaccinated successfully were 19,635, or 64·74 per cent. The rate of protection per mille of population was 30·41 against 39·26 last year. The total cost amounted to Rs. 78,842-1-6. Each successful case cost annas 2 and pies 10, or 1 pie less than last year. The unsuccessful in each kind of operations were, respectively, 5,724 and 6,755, and the unknown were 10,108 and 4,024. There were 1,060 secondary operations and 87 repetitions of revaccinations. Each vaccinator, on the average, operated on 1,717 persons.

Districts and Circles.	Persons Primarily vaccinated.				Persons revaccinated.				Total Number of Persons operated on.			
	1882-83.	1883-84.	Increase.	Decrease.	1882-83.	1883-84.	Increase.	Decrease.	1882-83.	1883-84.	Increase.	Decrease.
Northern Deccan Registration District	2,038	2,595	557	..	554	268	..	286	2,592	2,863	271	..
Southern Deccan Registration District	41,850	51,294	9,445	..	481	995	514	..	42,348	52,299	9,959	..
Konkan Registration District.	9,677	9,844	167	..	1,120	1,682	562	..	10,797	11,526	729	..
Eastern Gujarát Registration District	30,259	35,342	2,083	..	87	249	162	..	33,348	35,591	2,243	..
Western Gujarát Circle ..	92,045	96,173	4,128	..	3,349	6,630	4,281	..	94,894	102,803	8,409	..
Sind Registration District ..	2,858	3,127	277	..	4	5	1	..	2,854	3,132	278	..
Baroda	63,933	66,992	3,059	..	249	460	211	..	64,182	67,452	3,270	..
Cutch	20,619	18,803	..	1,816	339	364	..	75	20,958	19,067	..	1,891
Total ..	266,280	284,180	19,716	1,816	5,183	10,553	5,721	361	271,463	294,733	25,161	1,891

Work of Native State Vaccinators.

28. The above table shows the work of Native State vaccinators in 5 districts and 3 circles. Except in Cutch there is a general increase in primary vaccinations amounting to 19,716. In revaccinations there is a decrease of only 361 in the

Northern Deccan and Cutch. This decrease is much below the increase, which amounts to 5,731. There is an increase of 25,161 in total operations in all the districts but Cutch, which shows a decrease of 1,891. The decrease in Cutch is attributable to sickness amongst the vaccinators. There were 146 vaccinators, the same as last year. They worked over an area of 79705·3734375 square miles and amongst a population of 8,978,074. The numbers primarily vaccinated were 284,180, and 10,553 were revaccinated. Of these 269,598 and 7,241 respectively, or 94·87 and 68·62 per cent. were successful. The unsuccessful and unknown in primary vaccinations were 7,984 and 7,242 and 2,290 and 1,037 in revaccinations. There were 644 secondary operations, and 15 repetitions of revaccinations. Out of every 1,000 of population 30·84 were successfully operated on, against 28·72 last year. The total cost amounted to Rs. 52,611-8. This gives annas 3 per each successful case, or 2 pies less than last year. The average number of persons operated on by each vaccinator was 2,019. Additional vaccinators are required for each of the States of Sávantvádi, Sángli Táluka, Gad Hinglaj, Panhála, Kolhápur Petha, Lunáváda, Sunth, Kadána, Pálanpur (2), and Khairpur.

States that require additional Vaccinators.

29. There were 160 dispensaries, or 4 more than in the preceding year, in which vaccination was carried on. The following table shows the progress of vaccination in dispensaries by each district and circle :—

Work of Dispensary Officers.

Districts and Circles.	Persons Primarily Vaccinated.				Persons Revaccinated.				Total Number of Persons Operated on.			
	1882-83.	1883-84.	Increase.	Decrease.	1882-83.	1883-84.	Increase.	Decrease.	1882-83.	1883-84.	Increase.	Decrease.
Northern Deccan Registration District	6,508	4,990	..	1,118	150	27	..	182	6,698	5,017	..	1,681
Southern Deccan Registration District	6,700	3,841	2,141	..	404	794	390	..	7,104	9,635	2,531	..
Konkan Registration District ..	3,609	3,873	264	..	894	483	..	411	4,503	4,356	..	147
Presidency Circle	4	..	..	4	338	371	33	..	342	371	29	..
Eastern Gujarát Registration District	3,730	3,087	..	643	52	54	2	..	3,782	3,141	..	641
Western Gujarát Circle	1,694	2,612	918	..	121	124	403	..	1,815	2,136	1,321	..
Sind Registration District	2,414	2,227	..	187	436	264	..	172	2,850	2,491	..	359
Baroda	3,745	3,736	..	9	..	6	6	..	3,745	3,742	..	3
Shaik Othman, Bushire, and Muscat	365	620	254	..	..	3	3	..	366	622	256	..
Total ..	28,770	29,986	3,577	2,361	2,435	2,525	836	746	31,205	33,511	4,137	2,831

A decrease amounting to 2,361 is observed in the Northern Deccan, Presidency Circle, Eastern Gujarát, Sind and Baroda in primary vaccinations. The decrease in the Northern Deccan is owing to a falling off in the amount of work done in the Khándesh, Násik and Poona Collectorates. In the Eastern Gujarát it is attributable also to the same cause in the Surat and Broach Collectorates, and in the Kaira Collectorate is owing to the vaccination work of the Mahuda dispensary town having been entrusted to the táluka vaccinator. In Sind it is owing to a falling off in the work done in Gwadar. The decrease in Baroda is trivial, whilst in the Presidency Circle there were no primary vaccinations performed at any of the dispensaries this year against only 4 in 1882-83. There is an increase of 3,577 in other districts. In revaccinations there is an increase of 836 in Southern Deccan, Presidency Circle, Eastern and Western Gujarát, Baroda, Shaik Othman, Bushire and Muscat and a decrease of 746 in the other districts. On the whole there is a net increase of 1,306 over the work of last year. There were 29,986 persons primarily vaccinated and 2,525 revaccinated. The respective numbers of successful cases were 27,439 and 1,381. The percentages of success were 91·51 and 54·69 against 92·92 and 48·74 in 1882-83. The unsuccessful and unknown were 1,472 and 1,216 in primary vaccinations, and 891 and 255 in revaccinations. The number of secondary operations was 141. Two persons were revaccinated more than once.

Work performed in the Army generally.

30. The following table shows details of vaccination in the Army generally and amongst camp followers:—

		Primary Vaccinations.																		Revaccinations.						Percentages of successful cases.	
		1		2					3			4							5	6	7		8			9	10	11	
		Sex.		Caste.					Age.			Results.									Sex.		Results.					
												Successful.					Unsuccessful and doubtful.	Unknown.	Total.	Excess of Operations over Persons.					Total.	Excess of Operations over Persons.	In Primary Vaccinations.	In Revaccinations.
		Males.	Females.	Christians.	Hindus.	Mussulmans.	Pārsis.	Other Castes.	Under 1 year.	Between 1 and 6 years.	Above 6 years.	Under 1 year.	Above 1 and under 6 years.	Total of all Ages.							Males.	Females.	Successful.	Unsuccessful and doubtful.	Unknown.				
British Army.																													
Regiments	1882-83	103	99	193	5	..	..	..	186	7	1	180	7	188	32	..	220	24			244	56	191	110	6	307	7	95·92	63·67
	1883-84	113	78	164	23	2	..	..	178	10	1	166	9	176	13	1	190	1			682	100	448	342	..	790	8	93·12	57·29
Camp Followers.	1882-83	114	92	6	180	12	1	7	103	10	1	104	10	114	24	2	140	5			181	61	142	94	2	242	...	98·06	58·68
	1883-84	156	154	19	215	54	1	26	288	33	17	240	33	290	18	..	308	..			178	49	171	56	...	227	...	94·16	75·33
Total	1882-83	217	191	199	185	12	1	7	289	17	2	284	17	302	56	2	360	29			425	117	333	204	8	549	7	97·01	61·44
	1883-84	269	232	183	238	56	1	26	466	43	18	406	42	466	31	1	498	1			860	149	619	398	...	1,017	8	93·76	61·35
Native Army.																													
Regiments	1882-83	1,111	852	46	1,369	426	..	56	1,350	335	308	1,202	307	1,779	222	7	1,660	46			2,625	202	1,694	1,328	15	3,037	20	90·63	56·15
	1883-84	807	554	24	895	341	..	83	947	326	188	840	340	1,307	101	11	1,319	18			2,249	356	1,412	1,197	7	2,616	11	88·68	54·20
Camp Followers.	1882-83	1,643	1,302	118	1,701	807	26	193	2,440	345	259	2,213	295	2,959	271	165	3,395	1			469	95	320	244	..	564	...	87·93	56·73
	1883-84	1,945	1,602	31	1,248	667	19	579	2,194	196	17	1,790	136	1,921	204	125	2,259	1			181	60	155	83	3	241	...	82·20	64·32
Total	1882-83	2,753	2,154	164	3,156	1,433	26	249	3,790	680	567	3,506	602	4,738	444	179	5,055	71			3,094	487	2,014	1,572	15	3,601	20	88·99	56·24
	1883-84	3,052	2,186	55	2,143	1,008	15	609	3,141	522	205	2,630	476	3,228	305	136	3,777	19			2,430	416	1,567	1,280	10	2,857	11	84·29	55·06

31. Amongst European troops the number of persons primarily vaccinated was 497, and in 466 cases, or 93·76 per cent., the operation was successful. The unsuccessful and unknown cases amounted to 31 and 1 respectively: there was only one secondary operation. The revaccinations were 1,009, of which 619, or 61·35, were successful, whilst 398 were unsuccessful: there were no unknown cases. Eight persons were revaccinated more than once. Last year there were 402 persons primarily vaccinated and 542 were revaccinated, so there is an increase of 562 persons.

European Troops.

32. In the Native Army the primarily vaccinated numbered 3,698 and the revaccinated 2,844 against 4,987 and 3,581 in 1882-83. In primary vaccinations there is a decrease of 1,289, and

Native Troops.

in revaccinations of 735. The decrease is owing to there being very few cases that were left unprotected last year. The number of persons primarily vaccinated successfully was 3,128, or 84·59 per cent. In revaccinations there were 1,567, or 55·06 per cent., successful. The unsuccessful and unknown cases numbered respectively 445 and 144 in primary vaccinations, and 1,280 and 10 in revaccinations. Secondary operations were 19, and 11 persons were revaccinated more than once. The work performed by vaccinators in the military stations of Mhow, Neemuch and Nasirabad is included, as usual, in that for Camp Followers.

Average Number of Operations per each kind of Establishment.

33. The average number of persons operated on by different establishments is specified below for the years 1882-83 and 1883-84:—

No.	Establishments.	Average Number of Persons operated on.	
		1882-83.	1883-84.
1	2 Government Vaccinators	2,680	3,468
2	39 Municipal do.	2,314	1,733
3	1 Cantonment do.	1,813	1,717
4	249 Local Fund do.	1,820	1,894
5	146 Native State do.	1,859	2,019
6	437 For the whole Presidency	1,880	1,930

There is an increase under all establishments, except under Municipal and Cantonment vaccinators, whose average work is much below that in the preceding year.

Average Number of Operations per Vaccinator by Districts and Circles.

34. The subjoined table indicates the averages by districts and circles:—

No.	Districts and Circles.	Average Number of Persons vaccinated by each Vaccinator.		Names of Deputy Sanitary Commissioners and Superintendents.
		1882-83.	1883-84.	
1	Western Gujarát Circle ...	2,320	2,552	Dr. E. Tully.
2	Presidency Circle	4,667	2,271	Drs. Ananta Chandroba and Sakharam Arjun.
3	Baroda Circle	2,070	2,176	Dr. Bhalchandra Krishna.
4	Eastern Gujarát Registration District.	1,948	2,099	Drs. F. F. MacCartie, John Robb, and M. B. Colah.
5	Southern Deccan Registration District.	1,673	2,019	Dr. O. H. Channer.
6	Sind Registration District ...	1,917	1,820	Dr. J. C. H. Peacocke.
7	Northern Deccan Registration District.	1,744	1,726	Dr. J. Parker.
8	Konkan Registration District...	1,631	1,579	Dr. J. W. Clarkson.
9	Cutch Circle	1,233	1,122	Dr. Dorabji Hormusji.
10	Aden	603	585	Drs. A. S. Faulkner, J. W. T. Anderson, and Charles Monks.
	Average for the whole Presidency.	1,880	1,930	

The averages are above those of last year in the Southern Deccan, Eastern and Western Gujarát and Baroda. The Northern Deccan, Konkan, Sind, Cutch and Aden are below the average for the whole Presidency. Western Gujarát and the Southern Deccan have risen from their respective places (2nd and 7th) to the 1st and 5th; whilst the Presidency Circle, Northern Deccan, and

Sind have fallen from the 1st, 6th, and 5th to the 2nd, 7th, and 6th places. The five others—Konkan, Eastern Gujarát, Baroda, Cutch and Aden—hold the same places as last year.

English Lymph.

35. The subjoined statement shows the result of the English lymph received during the year :—

Supplies received in	No. on the Packet.	Districts and Circles.	Number of Tubes received and tested.	Number of Children operated on.	Number of Insertions.	Number of Resulting Vesicles.	Character of Vesicles.	Remarks.
November 1863.	119	Northern Deccan Registration District.	7	8	28	14	Large	Failure in two tubes. Twenty-two children were vaccinated with the lymph from these vesicles.
	20							
	23							
	497	Southern Deccan Registration District.	6	6	24	19	Fair.	
	5							
	497	Konkan Registration District	6	5	23	7	3 Good, 2 middling and 2 bad.	One tube broken by accident.
	8							
	9	Eastern Gujarát Registration District.	6	6	32	2	Good	Total failure in five tubes.
	21	Western Gujarát Circle	6	6	30	13	Four very good.	
	496	Sind Registration District	7	4	23	14	Good	Failure in one tube. One tube lost in transit.
	21	Baroda	4	4	24	19	Good but small.	
	498							
	4	Cutch	3	4	16	5	Good.	
		Total	45	45	215	93		
December 1863.	491	Northern Deccan Registration District.	7	7	24	9	Generally small	Twenty children were vaccinated with the lymph from four vesicles.
	242	Southern Deccan Registration District.	6	6	26	20	Rather small.	
	242	Konkan Registration District	6	6	26	22	7 good, 8 middling, 3 bad.	
	338	Eastern Gujarát Registration District.	6	6	32	22	17 good and 16 middling.	Twenty-four children were vaccinated with the lymph from these vesicles. Lymph distributed.
	323	Western Gujarát Circle	6	6	26	20	Small.	
	491	Sind Registration District	7	7	42	14	10 good and 4 bad.	Failure in two tubes.
	338	Baroda	4	4	24	20	Good and characteristic.	
	74	Cutch	3	1	13	1	Good.	
		Total	45	45	243	126		
		Reserved June	6	6	18	3	Good.	
		Sept.	6	6	18	6	Very good.	
			6	6	15	9	Do.	
		Aden	6	6	18	14	Do.	
		Dec.	6	...	...	...	...	Kept in reserve.
		March 1864.						
		Total	30	24	72	32		
		Grand Total	120	113	528	251		

There were 9 separate consignments, 2 of 45 tubes each, for the Bombay District and 4 for Aden, where English lymph is now sent direct. The first Bombay consignment was not as successful as the second, as it proved ineffectual in the Konkan and Eastern Gujarát. In Aden the twenty-four tubes produced 32 good vesicles out of 72 insertions on the arms of 24 children.

Quality of the Lymph in use.

36. The quality of the lymph in use was throughout good.

Lymph supplied.

37. During the year lymph was supplied to the Medical Officers, 3rd Cavalry, Mominabad; H. E. the Governor's Body Guard and Poona Horse; Garrison Surgeon, Asirgarh and Sanitary Commissioner, Assam, from the Northern Deccan; to the Medical Officers, Belgaum and Sátára Station Hospitals, from the Southern Deccan; to the Medical Officers, Western Rájputána States, Neemuch and Nasirabad from the Eastern Gujarát; to several Medical Officers in Beluchistán, Afghánistán and Persian Gulf from Sind; and to the Medical Officer, 25th Native Infantry, at Bhúj from Cutch.

Animal Vaccination.

38. Animal vaccination was carried on in Bombay, Poona City and Cantonment, Broach, and Kaira Collectorates and Rájkot and Dhrángadra. Much difficulty is experienced in

obtaining heifers for inoculation. The Bombay method of advertising for a constant supply of heifers by contract was tried, but failed; consequently animal vaccination had to be stopped in the towns of Broach and Nadiád. Animal vaccination is popular among villagers, as it saves them the trouble of taking their children from village to village. The local fund Presidents of Broach and Kaira have increased their grants, the former from Rs. 120 to Rs. 132 for carrying on animal vaccination continuously for one year in the Broach and Anklesvar tálukas and the latter from Rs. 120 to Rs. 200 in the Borsad, Ánand and Nadiád tálukas. In Western Gujarát animal vaccination was first started in Rájkot in the month of October last when Mr. Sirdarmiya Nanamiya, the 2nd Class Assistant Superintendent of Vaccination, who had been sent to Bombay during the monsoon to learn that art, inoculated 11 heifers successfully and the lymph was distributed among the vaccinators. In the months of February and March 5 heifers were successfully operated on in Dhrángadra. In all 16 heifers were inoculated with success at a cost of Rs. 48. The introduction of animal vaccination in the town of Belgaum and the municipal towns of the Sátára Collectorate is under contemplation and correspondence on the subject with the Collectors is still pending.

The annexed table shows the number of heifers inoculated and the monthly result of the operations in Bombay and Poona where animal lymph was kept up throughout the year :—

Months.	Poona City.			Poona Cantonment.			Bombay.			Total.		
	Heifers inoculated.	Successful.	Unsuccessful.	Heifers inoculated.	Successful.	Unsuccessful.	Heifers inoculated.	Successful.	Unsuccessful.	Heifers inoculated.	Successful.	Unsuccessful.
April 1883..	4	4	..	6	6	..	56	46	10	66	56	10
May	5	4	1	5	5	..	57	52	5	70	64	6
June	4	4	..	6	6	..	40	34	6	50	44	6
July	4	4	..	5	5	..	46	35	11	55	44	11
August	4	4	..	5	5	..	43	37	6	52	46	6
September	4	4	..	4	4	..	41	40	1	49	48	1
October	5	5	..	4	4	..	44	40	4	53	49	4
November	4	3	1	3	3	..	38	34	4	47	42	5
December	4	4	..	4	4	..	43	41	2	51	49	2
January 1884..	5	5	..	5	5	..	43	42	3	53	52	3
February	4	4	..	4	4	..	43	40	3	51	48	3
March	4	4	..	8	7	1	49	42	7	61	53	8
Total ..	51	49	2	64	65	1	545	483	62	669	595	65

In Poona 49 out of 51 heifers were successfully inoculated. Their cost was Rs. 144-7-6 against Rs. 105-3-6 last year. In Poona Cantonment 63 out of 64 heifers were successfully inoculated at a cost of Rs. 199-12-0.

In Bombay 545 heifers were inoculated against 570 during the preceding year. On 62 heifers the operations proved unsuccessful, of whom 20 were affected with the foot and mouth disease. The total cost was Rs. 6,126-10-11, whilst last year it was Rs. 5,449-1-6½. Animal lymph was sent to British Burma, Tasmania, Civil Surgeon Unao in Oudh, Residency Surgeon Ulwar in Rájputána, and many other parts of India.

Last year the Inspectors of Sanitation and Vaccination of Kaira and Broach zillas were sent to Bombay to learn animal vaccination, whilst this year the remaining three Inspectors of Surat, Panch Mahals and Ahmedabad, and one municipal vaccinator of Ahmedabad City have undergone instruction in Bombay. The Inspector of Broach carried on animal vaccination in Anklesvar and Broach tálukas and taught the táluka accinators as well as the Broach City vaccinator. Similarly the Inspector of Kaira taught the Borsad, Ánand and Nadiád táluka vaccinators as well as the Nadiád Town vaccinator. The first table, on the opposite page, shows the details of the work.

Talukas and Towns.	Villages in which Animal Vaccination was carried on.	Heifers inoculated.			Vaccinations performed from Human Lymph.									Extra Expenditure incurred on Animal Vaccination.	During what Months Heifer Vaccination was carried on by the Rural and Urban Vaccinators.
					Primary Vaccinations.				Retaincinations.						
		Successful.	Unsuccessful.	Total.	Successful.	Unsuccessful.	Unknown.	Total.	Successful.	Unsuccessful.	Unknown.	Total.			
Broach Collectorate.														Rs. a. p.	
Broach H. C. ..	35	41	3	44	563	68	31	662	290	110	41	441		16 11 0	From April to February 1884.
Anklesvar ,, ..	34	45	2	47	266	20	4	290	99	39	11	149		9 11 9	April, July and from October 1883 to February 1884.
Broach City	1	33	..	33	141	48	10	199	39	149	13	190		61 1 3	April to June 1883.
Total ..	70	109	5	114	1,070	233	39	1,343	415	469	67	971		87 8 11	
Kaira Collectorate.															
Nadiád H. C. ..	10	21	1	22	227	21	1	249	..	3	..	3		2 2 1	December 1882 and from January to March 1884.
Borsad ,, ..	17	101	1	102	1,149	..	..	1,149	21	51	..	72		4 5 0	July 1883 to March 1884.
Anand ,, ..	9	7	12	19	32	12	1	45	..	..	..	..		0 12 0	August 1882 to March 1884.
Nadiád Town ..	1	26	..	26	73	9	6	87	9	25	11	44		45 8 3	March to July 1883.
Total ..	37	155	14	169	1,480	42	8	1,530	39	79	11	129		53 11 6	
Grand Total ..	107	264	19	283	2,550	175	47	2,772	454	567	78	1,099		140 4 5	

Except in Bombay, where animal lymph only is used and in Poona, Broach, Nadiád, Anklesvar, Borsad, Rájkot and Dhrángadra, where both animal and human lymph were in use, vaccination in all other places was carried on from arm to arm and with human lymph. Vaccination with animal lymph was also carried on in Bándra. The total number of heifers inoculated was 935 against 645 last year; in 84 the virus did not take: the total cost was Rs. 6,659-2-10 against Rs. 5,818-7-0½ last year.

39. The total expenditure on account of vaccination is shown in the following table:—

Expenditure.

Establishment.	Total Expenditure.		*Compared with the preceding year.
	1882-83.	1883-84.	+Increase. —Decrease.
	Rs. a. p.	Rs. a. p.	Rs. a. p.
Provincial	1,13,936 1 7	1,11,770 9 1	−2,165 8 6
Municipal	24,595 15 4½	25,710 1 11	+1,114 2 6½
Cantonment	540 7 10	804 4 6	+263 12 8
Local Fund...	77,787 6 5	78,842 1 6	+1,054 11 1
Native State	51,425 14 1	52,611 8 0	+1,185 9 11
Total ..	2,68,285 13 3½	2,69,738 9 0	+3,618 4 2½
			−2,165 8 6
			+1,452 11 8½

Increase of Expenditure.

The increase under "Municipal" is owing to the temporary employment of extra vaccinators in Bhusával, Ahmednagar, and Belgaum; to the increased rate of pay to one of the Poona City vaccinators; to the entertainment of vaccinators in Kárwár and Surat City and to the increase of expenditure under "animal vaccination" in Bombay, Broach and Nadiád. The increase under "Cantonment" is attributable to the carrying on of animal vaccination throughout the year in Poona Cantonment. The increase under "Local Funds" is due to the entertainment of additional vaccinators, extra vaccinators, peons and paid candidate vaccinators. The increase under "Native States" is due to the horse allowance drawn by the Akalkot vaccinator; to the employment of temporary vaccinators in the Southern

Marátha Jághírs; to the increased rate of pay to Sávantvádi apprentices and to the salary of the Jawhár vaccinator; to the increased pay to one vaccinator and full time employment of two vaccinators in Eastern Gujarát, and to the extra expenses for animal vaccination and clothing to peons in Western Gujarát.

Cost of each successful case, including all charges.

40. The total cost for the whole Presidency, including all charges, was Rs. 2,69,738-9-0, whilst the successful cases, excluding dispensaries and the army, amounted to 794,380. The average cost per each successful case was annas 5-5, or 2 pies less than last year.

Cost of each successful case after deducting the pay of the Supervising Officers by Districts and Circles.

41. The total cost and the cost per each successful case, after deducting the pay of the Deputy Sanitary Commissioners and Superintendents, is shown in the following table by districts and circles compared with that for 1882-83 :—

Names of Districts and Circles.		Names of Deputy Sanitary Commissioners and Superintendents.	Successfully Vaccinated and re-vaccinated.	Total Cost, excluding the Pay of Deputy Sanitary Commissioners and Superintendents.	Average Cost of each Successful Vaccination.	Number of Vaccinators.
				Rs. a. p.	Rs. a. p.	
Northern Deccan Registration District.	1882-83	Dr. J. Parker	137,400	36,925 13 10	0 4 4	81
	1883-84		136,113	36,300 7 6	0 4 3	81
Southern Deccan Registration District.	1882-83	Dr. O. H. Channer	133,473	36,777 8 9	0 4 5	83
	1883-84		161,159	38,148 5 1	0 3 9	84
Konkan Registration District.	1882-83	Dr. J. W. Clarkson	77,870	23,020 8 6	0 4 11	50
	1883-84		75,048	24,314 12 6	0 5 2	50
Presidency Circle	1882-83	Drs. Ananta Chandraba and Sakharam Arjun.	32,791	14,611 8 7½	0 7 2	8
	1883-84		16,982	15,736 5 9	0 14 10	9
Eastern Gujarát Registration District.	1882-83	Drs. M. B. Colah, F. F. MacCartie, and John Robb.	117,732	27,002 9 2	0 3 10	63
	1883-84		127,195	28,086 12 2	0 3 7	64
Western Gujarát Circle	1882-83	Dr. E. Tully	92,315	22,079 8 2	0 3 10	43
	1883-84		99,018	21,347 10 11	0 3 5	43
Sind Registration District	1882-83	Dr. J. C. H. Peacocke	98,553	31,036 13 2	0 5 8	58
	1883-84		94,093	30,605 6 7	0 5 2	58
Baroda	1882-83	Dr. Bhalchandra Krishna	61,911	11,838 1 2	0 3 1	31
	1883-84		64,876	11,913 5 11	0 2 11	31
Cutch	1882-83	Dr. Dorabji Hormasji	20,710	7,072 0 1	0 5 6	17
	1883-84		18,869	6,796 5 9	0 5 9	17
Aden	1882-83	Drs. A. S. Faulkner, J. W. T. Anderson and Charles Monks.	419	410 0 0	0 15 6	1
	1883-84		427	425 0 0	0 15 11	1
		Total 1882-83	773,192	2,12,664 7 6½	0 4 3	436
		Total 1883-84	794,380	2,14,294 8 2	0 4 4	428

The cost per each successful case was less than last year in the Northern and Southern Deccan, Eastern and Western Gujarát and Baroda. The total cost was Rs. 2,14,294-8-2, which, when divided amongst 794,380 successful cases, amounts to annas 4-4, or 1 pie less than for the previous year.

Work of Deputy Sanitary Commissioners and Superintendents of vaccination.

42. The inspectorial work performed by the supervising officers is shown in the following table:—

Names of Districts and Circles.		Names of Deputy Sanitary Commissioners and Superintendents.	Number of Encampments.	Number of Travelling Days.	Distance travelled in Miles.	Number of Villages visited.	Number of Vaccinated Children inspected.
Northern Deccan Registration District.	1882-83	Dr. J. Parker	50	134	1,996	182	8,325
	1883-84		45	120	2,588½	222	9,865
Southern Deccan Registration District.	1882-83	Dr. O. H. Channer	68	139	1,010½	163	10,189
	1883-84		56	138	1,707½	176	8,980
Konkan Registration District.	1882-83	Dr. J. W. Clarkson	47	135	2,005	94	4,187
	1883-84		58	120	1,724	95	6,027
Eastern Gujarát Registration District.	1882-83	Drs. M. B. Colah, F. F. MacCartie, and John Robb.	51	150	2,615	306	9,243
	1883-84		52	173	2,300	409	8,970
Western Gujarát Circle	1882-83	Dr. E. Tully	29	78	782	185	12,462
	1883-84		24	90	1,003	180	14,128
Sind Registration District	1882-83	Dr. J. C. H. Peacocke	84	57	1,276	164	8,320
	1883-84		57	60	2,400	332	16,059
		Total 1882-83	300	684	10,784½	1,114	52,036
		Total 1883-84	330	906	11,739½	1,404	64,059

In Western Gujarát 34,188 children were inspected by Dr. Tully against 12,462 last year, 32,082 of these were inspected without the test of calling their names from the register; next to it is Sind, in which the number inspected amounted to 16,089 against 9,320 in 1882-83; the least number inspected was in the Konkan, in which only 6,027 children were inspected against 4,187 in 1882-83. For the Presidency the total number of children inspected is more than last year.

Districts and Circles.		Work tested by calling Names from Registers.											
		Number of Vaccinated Children inspected.	Present during Inspection.				Absent during Inspection.		Number of Persons whom the Vaccinator has returned as vaccinated.				
			Successful.			Unsuccessful.	Absence accounted for.	Absence unaccounted for.	Successful.	Unsuccessful and doubtful.	Unknown.	Total.	Excess of Operations over Persons.
			Good.	Middling.	Bad.								
Northern Deccan Registration District.	1882-83.	7,633	6,206	872	519	255	6,704	..	14,003	222	168	14,393	37
	1883-84.	8,588	6,984	1,016	408	210	7,060	..	15,749	182	224	16,155	7
Southern Deccan Registration District.	1882-83.	3,792	3,162	384	113	74	1,718	1	5,265	69	123	6,417	6
	1883-84.	5,612	4,779	539	208	86	3,334	1	8,528	106	313	9,947	..
Konkan Registration District.	1882-83.	3,536	2,015	816	574	131	2,010	..	5,134	247	171	5,552	6
	1883-84.	5,082	3,152	1,928	825	177	3,710	..	8,321	349	123	8,793	7
Eastern Gujarát Registration District.	1882-83.	8,245	5,490	2,054	639	160	1,439	..	9,263	289	222	9,765	23
	1883-84.	8,979	5,094	2,698	1,056	212	1,435	2	10,120	176	135	10,427	29
Western Gujarát Circle ..	1882-83.	4,102	840	1,155	1,779	339	1,948	..	5,643	228	169	6,059	..
	1883-84.	2,106	365	627	918	196	845	..	2,762	103	90	2,956	5
Sind Registration District ..	1882-83.	1,551	662	500	320	68	897	..	2,186	139	122	2,449	..
	1883-84.	3,575	1,713	967	596	109	1,899	1	4,833	284	292	5,413	58
Total ..	1882-83.	28,816	16,385	5,781	3,642	1,008	14,716	1	41,494	1,135	978	43,605	72
	1883-84.	33,733	21,057	7,675	4,011	990	18,882	4	50,323	1,200	1,168	52,681	71

43. It will be seen from the above table that for 84,059 children the results in 33,733 instances were tested by calling their names from registers, in which there were enrolled the names of 52,620 children, of whom 71 were vaccinated more than once on account of the failure of the first operation. The results given by vaccinators were 50,323 as successful, 1,129 unsuccessful, exclusive of 71 secondary operations, and 1,168 unknown; while on inspection they were found to be 32,743, 990 and 18,887. Excluding the "unknown," or rather the number of children "absent" at the time of inspection, from both sides, the vaccinators' figures give the percentages of 97·81 as successful and 2·19 as unsuccessful, while the inspection figures give them as 97·07 and 3·83. This test shows that the result noted by vaccinators is more by only 0·74 per cent. Again, out of 32,743 or 97·07 successful children there were 21,057 or 62·42 who had "good" cicatrices on their arms, 7,675 or 22·75 "middling", and 4,011 or 11·90 "bad." These results show the degree of protection afforded. The greatest number of inspections was in the Eastern Gujarát and Northern Deccan, whilst the least was in Western Gujarát. The number of children whose arms were inspected without the register test was 84,059, of whom 32,082 were in the Western Gujarát, 12,714 in Sind, and 3,368 in the Southern Deccan, whilst in the Northern Deccan they were 1,217 and in the Konkan only 945. In Eastern Gujarát no inspections were held without the register test.

Inspections from Vaccination Registers.

Truthfulness of Vaccination Registers.

Classification of successful cases.

Inspections without Vaccination Registers.

44. All the supervising officers have worked zealously and conscientiously throughout the year and have given me every assistance.

Remarks on the work of the Supervising Officers.

Work of Inspectors and Assistant Superintendents.

45. The work of Inspectors and Assistant Superintendents of Vaccination is detailed by districts and circles in the table subjoined:—

Districts and Circles.		Number of Encampments.	Number of travelling days.	Distance travelled in miles.	Number of Villages visited.	Work tested by calling Names from Registers.											
						Number of Vaccinated Children inspected.	Present during Inspection.				Absent during Inspection.		Number of Persons whom the Vaccinator has returned as vaccinated.				Result of Operation over Persons.
							Successful:			Unsuccessful.	Absence accounted for.	Absence unaccounted for.	Successful.	Unsuccessful and doubtful.	Unknown.	Total.	
							Character of Vesicles and Cicatrices.										
							Good.	Middling.	Bad.								
Northern Deccan Registration District.	1892-93.	321	1,556	4,502	1,849	47,585	40,703	5,008	1,474	1,790	16,536	..	62,614	762	327	64,203	99
	1893-94.	331	1,512	12,550	1,694	51,459	43,911	4,596	2,214	2,157	18,750	12	68,171	916	1,549	70,636	97
Southern Deccan Registration District.	1892-93.	880	1,450	12,703½	2,223	66,822	49,439	10,842	3,069	1,492	20,068	71	93,070	1,075	1,085	97,230	95
	1893-94.	786	1,399	12,967½	1,969	67,370	49,502	13,659	3,629	1,153	24,154	49	88,716	997	2,804	91,517	44
Konkan Registration District.	1892-93.	329	921	7,955	799	17,796	12,272	2,795	1,044	817	3,447	9	20,329	454	421	21,204	22
	1893-94.	310	716	7,390	619	13,608	7,166	2,802	2,231	599	3,765	7	16,115	397	348	16,859	37
Eastern Gujarát Registration District.	1892-93.	415	1,119	10,797	2,152	45,585	36,559	14,311	5,651	823	8,548	1	51,046	1,172	1,379	54,357	155
	1893-94.	298	948	10,884	1,854	41,180	30,166	10,695	5,008	1,287	8,658	2	46,900	1,010	1,848	50,059	227
Western Gujarát Circle.	1892-93.	289	467	4,295	867	25,779	13,950	6,661	3,923	844	6,097	..	29,661	1,410	1,133	32,204	47
	1893-94.	154	236	2,404	500	10,947	9,143	3,901	3,134	871	5,550	..	20,504	1,071	900	22,475	25
Sind Registration District.	1892-93.	816	1,419	17,434	4,507	51,243	19,397	17,809	15,545	5,302	24,463	43	67,860	4,455	4,718	77,027	276
	1893-94.	563	1,013	14,702	3,103	37,430	12,959	11,862	10,604	3,345	19,057	..	47,060	6,305	3,272	56,637	150
Cutch ...	1892-93.	169	216	1,613	647	15,146	11,574	353	700	450	1,798	24	14,779	185	67	15,031	110
	1893-94.	166	249	1,716	488	14,749	12,905	166	808	606	2,839	23	17,309	357	34	17,700	96
Baroda ...	1892-93.	944	900	6,329	1,253	31,021	27,120	4,070	2,256	275	4,750	156	36,414	709	721	37,844	86
	1893-94.	906	982	7,161	1,410	30,960	26,264	4,884	2,189	580	5,097	9	37,599	700	662	38,961	79
Total	1892-93.	4,511	8,119	76,83[illegible]	15,798	300,927	186,962	66,923	33,561	11,943	96,922	316	367,583	10,241	11,190	388,964	980
	1893-94.	4,007	7,455	70,157½	11,585	276,312	186,434	61,604	37,422	10,727	97,853	98	341,994	11,760	10,176	364,743	772

31 Inspectors and 4 Assistant Superintendents were on travelling duty. Of this number 27 Inspectors and 2 Assistant Superintendents were paid by Government, and the remainder by Native States. The names of 364,063 children were called from the registers, of whom 276,212 were present, 87,853 were absent, but their absence was accounted for, whilst 98 could not be accounted for, as they had migrated. Out of 276,212 children inspected, 265,460, or 96·11 per cent., were protected, and in 10,752 cases, or 3·89 per cent., the operation was unsuccessful. Again out of 265,460, or 96·11 per cent. successful cases, 186,434 or 67·56 per 100 had "good" cicatrices, 51,604 or 18·68 "middling", and 27,422 or 9·93 "bad". In the registers tested, the results were entered as 341,904 successful, 12,705 unsuccessful, 10,176 unknown or absent, and 722 secondary operations. Excluding the unknown and secondary operations from calculation, to compare this result with that of inspection, the percentages of successful and unsuccessful cases are respectively 96·61 and 3·39. This shows that the results recorded by the vaccinators are approximately correct. The rate of travelling was quicker than last year in the Southern Deccan, Konkan, Eastern Gujarát, Sind and Baroda, and the number of villages seen was greater in Cutch and Baroda. The greatest number of villages seen was in Sind. The number of children inspected was greater in two districts and two circles—viz., the Northern and Southern Deccan, Cutch and Baroda. Three Inspectors were promoted—2 in the Eastern Gujarát, 1 from 2nd to 1st and 1 from 3rd to 2nd class, and 1 in Sind from 3rd to 2nd class. Two in the Southern Deccan were transferred. One Assistant Superintendent of Vaccination, Kolhápur State, was transferred to Dhárwár as

3rd class Inspector. There was 1 death in Sind. The conduct of the inspecting officers, with one or two exceptions, was reported as good and satisfactory.

Their conduct.

46. Taking the work of all the Deputy Sanitary Commissioners, Superintendents, Assistant Superintendents and Inspectors together, there were 4,417 encampments, 81,886 miles travelled in 8,136 days, and 360,271 children inspected in 12,989 villages. Out of every 100 persons operated on, 40·76 were this year inspected against 41·20 in the preceding year.

Total Inspections.

47. Six vaccinators were dismissed the service—3 in the Southern Deccan, (2 by the two Miraj States and 1 in Sátára for falsifying his age on entering the service); 1 in Western Gujarát for robbing his peon, 1 in Baroda, and 1 in Cutch for absence without leave. Two vaccinators were suspended for misconduct. One vaccinator in Baroda was degraded. Four vaccinators died. Two vaccinators and 4 candidate vaccinators resigned the service. Three vaccinators retired. Eighteen vaccinators and one candidate vaccinator were transferred. Thirteen vaccinators were promoted. Four candidate vaccinators were appointed as vaccinators. There were 6 new appointments—1 candidate in the Northern Deccan, 1 candidate and 1 vaccinator in the Southern Deccan, 1 candidate in the Konkan, 1 vaccinator in Eastern Gujarát, and 1 candidate vaccinator in Sind. The conduct of the vaccinators generally was good.

Conduct of Vaccinators.

48. Two clerks, 1 in each of the Northern Deccan and Eastern Gujarát Registration Districts, resigned. Two clerks in Eastern Gujarát were promoted to higher grades.

Clerks.

49. Inoculation was not practised anywhere in the districts except in the Konkan and Sind. In the Konkan it was said to have been practised in Pálgad of Mandangad Petha, Ratnágiri Zilla and in Máhim Táluka and Umbergaon Petha, Thána Zilla. In Sind it was carried on in the Kárachi, Hyderabad and Thar and Párkar Districts. Government has decided in para. 15 of their Resolution No. 52, dated 7th January 1878, that all persons conniving at it should be dismissed from the service of Government. I am very anxious that the practice of inoculation should be stopped, as it is the surest method of spreading small-pox; but Government is not at present prepared to legislate on this subject.

Inoculation.

50. No instances were reported of any other disease but cow-pox having been communicated through vaccination. In Western Gujarát Dr. Tully observed a few unhealthy ulcers and small abcesses in the axilla, and in Cutch a few eczematous eruptions were seen extending on the arms and trunk by Dr. Dorabji Hormusji.

Ill-effects by Vaccination.

51. The Civil, Revenue and Political officers have rendered aid, when required, to all the officers of this department.

Aid from Civil, Revenue and Political Officers.

52. The table on the next page shows the deaths from small-pox for the years 1883-84 and 1882-83, as well as the ages of the deceased and the number of persons successfully operated on in each district of the Bombay Presidency.

Small-pox by Collectorates and Registration Districts.

Small-pox prevailed everywhere throughout the Presidency, but to the greatest extent in the Southern Deccan, Konkan, and Sind.

(*a*). In the Southern Deccan the disease prevailed in epidemic form throughout the Collectorates towards the close of the year, and especially in the town of Belgaum. Extra vaccinators were sanctioned by all the Collectors to render aid to the permanent staff. The Collector of Sátára issued a circular to all his subordinates ordering them to urge parents to bring their children without delay to be vaccinated, and to represent to the adult population the necessity for revaccination. In the event of an outbreak of small-pox in any village daily reports were ordered to be sent in.

(*b*). Konkan small-pox was present in all the Collectorates at the commence[illegible] the year. It attained intensity during April, May, and June. The Collect[illegible] Ratnágiri, where the disease was extremely prevalent, took

No.	Districts and Circles.	Years.	Deaths from Small-pox.			Number of Persons successfully operated on.
			Total Deaths.	Ages.		
				Under 1 year.	Under 12 years.	
1	Northern Deccan Registration District. — Khándesh Collectorate ...	1882-83	1,592	488	1,055	43,708
		1883-84	904	334	577	36,876
2	Nasik do. ...	1882-83	166	60	77	22,447
		1883-84	601	266	329	21,921
3	Ahmednagar do. ...	1882-83	194	79	115	27,739
		1883-84	177	81	94	27,875
4	Poona do. ...	1882-83	1,198	389	525	24,869
		1883-84	655	254	382	24,962
5	Sholapur do. ...	1882-83	3	...	3	22,016
		1883-84	135	31	104	26,046
	Total ...	1882-83	3,153	1,016	1,775	140,760
		1883-84	2,492	966	1,482	137,683
6	Southern Deccan Registration District. — Sátára Collectorate ...	1882-83	56	15	31	33,211
		1883-84	759	171	264	37,118
7	Belgaum do. ...	1882-83	65	18	18	24,556
		1883-84	1,440	557	540	29,415
8	Dhárwár do. ...	1882-83	62	21	26	23,034
		1883-84	1,728	286	437	27,924
9	Kaládgi do. ...	1882-83	8	...	8	15,905
		1883-84	1,971	829	1,082	21,309
	Total ...	1882-83	191	54	83	96,794
		1883-84	5,898	1,843	2,323	115,766
10	Konkan Registration District. — Kánara Collectorate ...	1882-83	61	5	8	11,319
		1883-84	522	47	110	13,377
11	Ratnágiri do. ...	1882-83	119	20	32	23,455
		1883-84	1,432	361	560	26,907
12	Kolába do. ...	1882-83	135	28	42	9,895
		1883-84	343	121	169	8,398
13	Thána do. ...	1882-83	951	292	549	25,898
		1883-84	1,244	453	739	19,517
	Total ...	1882-83	1,266	355	631	70,567
		1883-84	3,541	982	1,578	67,899
14	Presidency Circle. — Bombay City	1882-83	1,128	385	462	32,851
		1883-84	435	202	165	17,058
15	Eastern Gujarát Registration District. — Surat Collectorate ...	1882-83	943	282	609	20,146
		1883-84	408	137	326	17,067
16	Broach do. ...	1882-83	75	28	47	13,482
		1883-84	68	33	32	13,393
17	Kaira do. ...	1882-83	5	4	1	21,423
		1883-84	40	12	27	25,739
18	Panch Mahals	1882-83	6	1	5	8,179
		1883-84	70	20	46	9,848
19	Ahmedabad	1882-83	52	11	41	27,461
		1883-84	122	45	75	28,939
	Total ...	1882-83	1,081	326	703	87,691
		1883-84	798	247	506	94,376
20	Sind Registration District. — Karáchi Collectorate ...	1882-83	153	12	22	20,307
		1883-84	315	40	46	18,959
21	Hyderabad do. ...	1882-83	284	83	77	24,145
		1883-84	650	163	209	24,382
22	Thar and Párkar ...	1882-83	8	1	4	14,220
		1883-84	28	3	3	12,800
23	Shikárpur Collectorate	1882-83	18	5	5	33,990
		1883-84	2	1	...	31,638
24	Upper Sind Frontier ...	1882-83	...	...	...	4,707
		1883-84	1	...	...	5,537
	Total ...	1882-83	463	101	108	97,369
		1883-84	995	207	258	93,376
	Grand Total ...	1882-83	7,282	2,237	3,762	526,032
		1883-84	14,089	4,447	6,312	526,158

special measures to arrest its progress. Extra vaccinators were appointed and animal vaccination was introduced, and the people were warned by the Revenue authorities to get their children vaccinated.

(*c*). In Sind the disease was not so virulent as in the Southern Deccan and Konkan. It was most intense in the district of Hyderabad, where it carried off 659 persons against 284 in the preceding year.

In Western Gujarát cases of small-pox were reported to have occurred in 151 villages, 1 each in Sáyla, Navánagar, Bhávnagar, Mángrol, Rájkot, Bagásra, Deesa, Khambália, Kánkraj, Sultánpur and Jetpur; 2 each in Wánkáner and Wadhwán; 3 each in Mália, Mádhaopur, Dhrángadra, Jáfrábád and Virával; 4 each in Kundla, Mahuva and Bántvá; 5 each in Dhrol and Limdi; 6 each in Botad, Bilka, Wála, Sihor and Rádhanpur; 8 in Pálitáná; 9 each in Morvi, Dhoráji and Junágad; 11 in Jasdan, and 23 in Jhinjhuvádá. Dr. Tully, the Superintendent of Vaccination, says that "until registration is introduced no idea can be obtained of the ravages of the disease, every one tries to hide the fact. Disease is spread about and taken from one village to another by strangers, Vaghris, Bajanias, Pardeshis, Vanjaris and others, and I have proposed to put them under camping grounds, but there will be great opposition to this." On the whole, there were 14,069 deaths against 7,282 in 1882-83, and the number of successful operations was 526,158, or only 126 more than last year. There were 4,447 infants, 6,312 children under 12 years, and 3,310 persons of all other ages returned under small-pox deaths; last year the respective numbers were 2,237, 3,762 and 1,283. The only collectorate that was free from deaths last year was Upper Sind Frontier, where there was only 1 death, whilst in Shikárpur there were 2 deaths against 18 last year. In Baroda 959 cases occurred, of whom 68 proved fatal. There were only 2 cases of small-pox in Aden and 4 in Shaik Othman.

Small-pox occurring after vaccination.

53. A few cases of small-pox, occurring after vaccination, were noticed in the Southern Deccan, Cutch and Sind, but they were of a modified character. In the Konkan Dr. Clarkson notices some cases as follows:—

"Many cases of small-pox, occurring after vaccination, have this year come under my notice; also several cases of small-pox amongst the unprotected. I have thought it worth while to tabulate the results as underneath:

TABLE A.

Number of Persons seen lately attacked by Small-pox showing 'Ages with their Percentages at the time of attack,' if previously vaccinated or not, and other particulars.

Class.	No.	Amount of Eruption or Scarring.			Character of Vaccination Cicatrices.				Ages at the time of Attack.						
		Slight.	Moderate.	Copious.	Good.	Middling.	Bad.	Not seen.	Under one year.	Above one and under 5 years.	5 to 15.	15 to 25.	25 to 35.	35 to 45.	Over 45.
Previously vaccinated ..	99	66	9	24	7	30	24	29	1 1·01	8 8·08	14 14·14	22 22·22	23 23·23	22 22·22	9 9·09
Unvaccinated	43	7	18	17	..	..	..	..	5 11·6	20 47·6	9 21·4	6 14·3	1 2·4	1 2·4	...

TABLE B.

Number of Deaths from Small-pox in five Villages showing those Vaccinated and Unvaccinated with the 'Ages at the time of Death.'

Class.	No.	Sex.		Ages at the time of Death.						
		Male.	Female.	Under one year.	Above 1 and under 5.	5 to 10.	10 to 20.	20 to 30.	30 to 40.	Over 40.
Vaccinated	5	5	...	...	1	1	...	2	1	...
Unvaccinated	32	20	12	11	14	3	3	...	1	...
Unknown	2	...	2	...	...	1	...	1	...	...
Total ...	39	25	14	11	15	5	3	3	2	...

From table A it will be seen that 141 cases of small-pox were seen by me. Of these 99 had been previously vaccinated and 44 were not vaccinated. I have endeavoured to classify the amount of eruption or scarring in the cases seen and also noted the character of the vaccination cicatrices amongst those previously vaccinated, and it can be seen how previous vaccination modifies the disease. The effect, also, of vaccination is shown on referring to the 'ages at the time of attack.' Among the vaccinated 9·09 per cent. were under 5 years of age, whilst amongst the unvaccinated 59·5 per cent. were under that age. It shows then that vaccination, even if imperfectly done or even if the effect gradually dies out, does good in enabling the attack to be better resisted. That this is of some benefit can be seen by referring to Table B, which is a summary of the village registers of those who died from October up to the time of enquiry, and of the 39 deaths enquired into 32 were stated by the parents or friends not to have been vaccinated.

The cases were seen in 15 villages which I visited in the course of my inspection work. The outbreak as I saw it was not of a very serious character. In only 3 cases did I notice the implication of other organs. In these cases the eyes were affected.

Although in all the villages visited the birth and death register was looked into to see if any deaths had occurred since October 1st, only in four villages (Kudal, Mirgaum, Rájápur and Makhjan) were deaths found to have occurred. I also went into Ratnágiri specially as the outbreak had been very heavy there. Thirty-two deaths had occurred since October, but I could only enquire into 20; of these 20 only 2 had been vaccinated and of the 18 remaining, 12 were under 5 years of age at the time of death.

As regards those dead I had to rely on the statements of friends and parents as to whether vaccination had been performed or not, but I have no doubt that in every case I was correctly informed. In two cases information could not be obtained.

In two other cases small-pox was stated to have occurred after revaccination and in one case in an old man, after inoculation done in early life. In one case also in which the patient died revaccination was reported to have been done.

Such reports as I have received from Dispensary Medical Officers also show the same as follows:—

Dápoli.—13 cases under treatment during the year, including 3 from last year. Two deaths, one unvaccinated and other said to be vaccinated but showing no cicatrix.

Sávantvádi.—105 cases under treatment, 3 unvaccinated. No deaths. Ninety-nine of the cases were over 12 years of age.

Honávar.—90 cases—74 unvaccinated, 5 stated to have been previously vaccinated and 11 vaccinated. There were 14 deaths, but the report does not state in which class they occurred.

Sirsi.—In the attack since January 17 cases—7 vaccinated, 8 unvaccinated and 2 noted as having had small-pox previously. Two deaths amongst the vaccinated.

Kumta.—103 cases—24 vaccinated, 62 unvaccinated, 16 stated to be vaccinated but having no cicatrices, 1 stated to have had small-pox before. Nineteen deaths, all amongst the unvaccinated."

In Eastern Gujarát Dr. Colah made full enquiries on the subject. He says:—

"A special report on small-pox was submitted by me in June last, with it a statement was forwarded containing particulars of caste, sex, age and result of small-pox cases and of their previous vaccination. This statement was a tabulation of returns of 164 villages containing in the aggregate a nominal record of 2,141 cases of small-pox. Since the date of that report I have been able to collect a similar history of 1,452 small-pox cases occurring in 115 villages. Up to date I have been able to collect particulars of 3,593 cases of small-pox occurring in two years (1882-83 and 1883-84). As regards previous protection the return shows that 2,640 are unvaccinated and 843 are said to have been previously vaccinated; of these 843 previously vaccinated cases 478 are said to have been successful and 365 unsuccessful vaccinations. In 77 instances the history of previous vaccination is doubtful and in 33 instances small-pox occurred concurrent with vaccination. Of the total number 2,829 recovered and 764 died. These deaths together with the deaths in Surat City amount to 1,496, out of which it appears that 1,313 deaths occurred in unvaccinated children, 51 deaths are reported to have occurred in previously successfully vaccinated persons, and 86 in unsuccessfully vaccinated persons. In 67 instances the history of previous year is doubtful and in 29 instances death occurred from small-pox in the same week of vaccination.

As regards ages of the dead 576 are under 1 year, 658 are between 1 to 5 years, 160 between 5 to 10 years, 32 between 10 to 15 years and 70 more than 15 years of age.

Out of a total of 3,593 cases of small-pox 2,640 occurred among unvaccinated persons; yet the number of cases of small-pox (843) occurring after vaccination is not inconsiderable. Regarding the post-vaccinal small-pox in places where it was possible to do so, I have made minute enquiries and feel satisfied that much of it is due to bad vaccination. When vaccination work is carried on on a large scale throughout the country in all seasons of the year under more or less adverse circumstances such a result is inevitable. I was once of

opinion that after a good successful vaccination the occurrence of small-pox was an impossibility. That efficient vaccination is a safe and certain protection against small-pox, holds good as a general rule, nevertheless instances do occur, though very rare, of severe small-pox after previous successful vaccination."

I am indebted to Surgeon Major C. T. Peters, M. B., of the Bombay Medical Service, for the following interesting paper on the treatment of small-pox and chicken-pox by the external application of calcium sulphide, which I publish, as I think the treatment therein advocated is well worth a trial, and should be widely known :—

"More than twelve years ago while attached to the Civil and Staff Hospital at Belgaum, I had a few cases of small-pox, in which I wanted to try the efficacy of the different remedies that were recommended at that time for the prevention of 'pitting' in small-pox. Amongst other things was the sulphuret of lime lotion, which is prepared as follows:—

Take of Quicklime	...	One-quarter pound.
Sulphur in powder	...	Half a pound.
Water	...	Five imperial pints.

Boil, stirring constantly, and evaporate down to three imperial pints. Filter. The solution is of a rich golden colour and should be preserved in glass stoppered bottles. The product is calcium pentasulphide and calcium hyposulphite. When prepared with ordinary well or river water it is liable to deposit a white precipitate and the solution becomes colourless and loses its efficacy. It should therefore be freshly prepared and used only while it retains its golden colour, and only a small quantity should be taken out at a time sufficient for the day's use.

The following treatment was adopted :—Each patient was to have a dose of aperient on first admission, and during the primary fever an ounce of the diaphoretic mixture of our dispensaries which contains liq. ammonia acetatis, spiritus ætheris nitrosi, and potassæ nitras with five minims of vin. ipecac. given every 2, 3 or 4 hours according to the urgency of the febrile symptoms.

Externally the freshly prepared calcium sulphide lotion was applied with a feather over the eruptions as they appeared, taking care that the solution did not drop into the eyes. This was done twice or three times daily, and it was observed that the eruptions so painted began to wither on the 3rd or 4th day, while the adjacent healthy skin showed no marks of being in any way affected. This enabled us to detect the fresh eruptions as they appeared and each one of these was in its turn painted with the lotion. The application was in this way continued daily until the dry scabs began to separate. This generally occurred about the 9th or 10th day, over the face, and in the lower extremities 4 or 5 days later.

As a rule there was *no suppuration*, and when the scabs dropped off they left a moist excoriated surface which was subsequently treated with an inunction of weak carbolic oil (1 in 20) which was applied over the whole body, and followed by a warm bath which was given every two or three days. The inunction was continued until all the scabs had dropped off and all the excoriated surfaces had healed, when after thorough disinfection of clothing, &c., the patient was discharged.

Whatever the effect of this treatment may have been upon the "pitting" I cannot say, for I have not been fortunate enough to see the patients subsequently so as to be able to form an opinion as to whether any marks of pitting were left, but there were certainly many more obvious advantages gained by the external application of the calcium sulphide lotion, viz. :—

1*st*.—There was no secondary fever.

2*nd*.—There was no suppuration, or any offensive discharge.

3*rd*.—After the primary fever had subsided the patient was as a rule able to move about.

4*th*.—By the early destruction of the small-pox germs, the danger of infection was averted.

5*th*.—An early recovery.

Having been so far successful with about half a dozen cases which I had at the time, I was determined to give this method of treatment a trial whenever an opportunity presented itself.

During the famine years 1876—78 I was again stationed in Belgaum with my Regiment, the 2nd (Prince of Wales' Own) Grenadiers, Bombay Native Infantry. A number of the men and some of their relatives were suffering from chicken-pox, and I treated them also with the external application of the calcium sulphide lotion, with the happy result that they were fit for duty much earlier than when no such treatment was followed.

Later on a number of small-pox cases came into the Civil Hospital with the famine immigrants, a few of them came in advanced stages of the disease and in a very debilitated condition, and died of exhaustion before a fair trial could be given, but those who were received early made a rapid recovery under this plan of treatment.

At the close of the year 1878 the Regiment marched in the course of relief to Nasirabad in Rájputána where small-pox is very prevalent, and shortly after arrival there, a death was reported amongst the followers obtained from the Cantonment Bázár, and on inspection of the body the cause was ascertained to be confluent small-pox. There were two other children in the same family who were at once isolated and vaccinated, the elder of the two children was suffering from fever at the time, and soon after eruptions of a severe confluent type appeared; these were treated with the calcium sulphide lotion with satisfactory results, viz., there was no secondary fever. No suppuration, and an early recovery. The other child was previously vaccinated and did not take the infection, neither did the parents who had small-pox previously.

Shortly after this, I was appointed to the British Agency and Consulate General at Zanzibar. Towards the end of the year 1880, a slave dhow was captured with about 90 odd slaves on board, who were liberated, and some of the children were taken over by the Universities' Mission. The girls were sent to the Institution at Mbweni, some five miles from Zanzibar, while the boys were kept in the Town Mission House. Some of these children took ill with small-pox at both these places simultaneously, and it appeared that some of their number had small-pox on the voyage, so that it was evident that they had brought the infection from the mainland.

The boys were isolated and sent away outside the town and accommodated in a hut where they were left in charge of a nurse to carry out the treatment with the calcium sulphide lotion with very satisfactory results even where the disease was of the confluent or semi-confluent type.

I believe that the calcium sulphide lotion acts by destroying the germ and by arresting the formation of pus and thus leads not only towards an early recovery but also prevents those complications which arise from blood poisoning, such as pyæmic abscesses and suppuration of joints.

Now that calcium sulphide is given internally to prevent suppuration, I would be inclined to give it in ¼ grain doses in pills where suppuration has already commenced.

I venture to bring this mode of treatment of small-pox by the external use of the calcium sulphide lotion with the hope that it may receive a more extended trial, and I am inclined to believe that it may prove not only successful in the treatment of the individual cases but lessen the risk of infection by destroying the disease germs."

Progress in the Northern Deccan Registration District.

54. The Northern Deccan Registration District extends over an area of 36,845·7 square miles, comprising the collectorates of Khándesh, Násik, Ahmednagar, Poona and Sholápur, and the Native States of the Khándesh Agency, Akalkot and Modnimb. It has a population of 4,384,856 persons. It was administered by a Deputy Sanitary Commissioner who had working under him 7 Inspectors of Sanitation and Vaccination, 2 clerks, 8 municipal, 1 cantonment, 71 local fund and 1 Native State vaccinators and 91 peons. An additional vaccinator is required for one town circle. Vaccination returns were received from 29 dispensaries. Each vaccinator, on an average, worked amongst a population of 54,134 persons and in an area of 454·9 square miles. They primarily vaccinated 137,443 and revaccinated 2,325 persons: last year the respective numbers were 138,406 and 2,887. There were 134,538 or 97·88 per cent. successful cases under primary vaccinations, and 1,575 or 67·74 per cent. under revaccinations. These together give the total rate of protection as 31·04 per mille of population, whilst last year it was 31·34. The total cost was Rs. 43,530-7-6, and the average cost per each successful case was annas 5 and pie 1, the same as last year. Each vaccinator averaged 1,726 persons. The Medical Officers of 29 dispensaries returned 4,990 persons primarily vaccinated and 27 revaccinated against 6,508 and 190 in 1882-83. There were 2,492 deaths from small-pox, whilst last year there were 3,153.

Khándesh Collectorate.

55. In the Khándesh Collectorate there are 25 vaccinators, each of whom had, on an average, an area of 397·7 square miles and a population of 49,489 persons. One more has been employed since 1st April 1884 to complete the establishment. The primary

vaccinations amounted to 35,442, which in 34,598 instances, or 97·62 per cent., were successful; 436 persons were revaccinated, and in 385 cases, or 88·30 per cent., successfully. The rate of protection per mille of population was 28·28 against 33·53 in 1882-83. The total cost of vaccination was Rs. 6,972-9-3, or annas 3 and pies 2, or 5 pies more than last year, per each successful case. The average number of operations per each vaccinator was 1,435. The Medical Officers of 9 dispensaries attended to vaccination work, which amounted to 1,954 and 21 persons under each kind of operation. There were 924 deaths from small-pox, whilst last year there were 1,592.

Násik Collectorate.

56. In the Násik Collectorate there are 13 vaccinators, but another is required for the town of Yeola. The average population and area per vaccinator were respectively 60,093 persons and 457 square miles. There were 21,169 primary vaccinations and 162 revaccinations, of which 20,608 and 132, or 97·35 and 81·48 per cent., were successful. The rate per mille of population protected was 26·55, whilst last year it was 26·43. The total cost was Rs. 3,785-3-10, or annas 2 and pies 11, or 1 pie less than last year per each successful case. Each vaccinator vaccinated 1,641 persons. In 7 dispensaries 1,284 persons were primarily vaccinated and 2 were revaccinated. There were 601 deaths against 166 in the preceding year.

Ahmednagar Collectorate.

57. In the Ahmednagar Collectorate there are 13 vaccinators, and the average population and area per vaccinator were respectively 57,787 persons and 512·8 square miles. There were 27,673 primary vaccinations and 244 revaccinations, and the successful cases were respectively 27,536 and 151, whilst the percentages of success were 99·50 and 61·88. The rate per 1,000 of protected was 36·86 against 36·61 last year. Each vaccinator vaccinated 2,147 persons. The total cost was Rs. 3,825-14-5, and the average cost for each successful case was annas 2-3, the same as last year. The Medical Officers of 2 dispensaries primarily vaccinated 222 persons and revaccinated none. There were 177 deaths: last year there were 194.

Poona Collectorate.

58. In the Collectorate of Poona there are 17 vaccinators. The average population and area per vaccinator were respectively 52,978 persons and 314·6 square miles. Out of 24,774 primary vaccinations and 778 revaccinations, 23,768 or 95·94 and 360 or 46·27 per cent. were successful. The rate per mille of population protected was 26·79 against 26·09 last year. Each vaccinator, on an average, operated on 1,503 persons. The total cost was Rs. 5,604-3-8. This gives the average cost per each successful case as annas 3-9 against annas 3-0 last year. In 9 dispensaries 972 persons were primarily vaccinated and 2 were revaccinated. There were 655 deaths from small-pox: last year there were 1,198.

Sholápur Collectorate.

59. In the Sholápur Collectorate there are 12 vaccinators, each of whom had, on an average, an area of 376·8 square miles and a population of 48,541 persons. There were 25,790 primary vaccinations and 437 revaccinations; of these 25,540 and 313 or 99·03 and 71·62 were successful. The rate per mille of population protected was 44·38 against 37·44 in 1882-83. Each vaccinator vaccinated 2,184 persons. The total cost was Rs. 3,611-4-1, which gives annas 2-3 as the average cost per each successful case: last year it was annas 2-11. At the Karmála Dispensary 210 persons were primarily vaccinated and only 1 was revaccinated. There were 135 deaths from small-pox: last year there were 3.

Native States in the Northern Deccan Registration District.

60. The Native States are the Dáng Territory, Akalkot and Modnimb, which belongs to the Miraj State. They have a collective population of 132,083 persons and an area of 4,427 square miles. A vaccinator was sent to the Dáng Territory on 1st May 1879; but as he met with strong opposition he was withdrawn and transferred to British territory. In Modnimb vaccination is carried on by the Mádha Táluka vaccinator of the Sholápur Zilla, as it is close to that táluka. He is paid Rs. 5 per month by the Miraj State. The Akalkot State has 1 vaccinator, and the Medical Officer of the Akalkot Dispensary attends to the vaccination work of that town. The total number operated on in the 2 States, excluding the dispensary, was 2,863, of which

268 were revaccinations. The successful cases were 2,488, or 95·88 per cent., and 234, or 87·31 per cent., under each kind of operation. The rate of protection per 1,000 was 20·61 against 18·72 last year. The total cost was Rs. 379-13-6, or annas 2-3 per each successful case, against annas 2-2 last year. In the Akalkot Dispensary 348 persons were primarily vaccinated and only 1 was revaccinated.

Progress in the Southern Deccan Registration District.

61. The Southern Deccan Registration District comprises the collectorates of Sátára, Belgaum, Dhárwár and Kaládgi, the Kolhápur States, the Sátára and the Southern Marátha Jághírs and the Savanúr State under the Dhárwár Agency. It has a population of 5,091,383 and an area of 28,781·4 square miles. It was administered by a Deputy Sanitary Commissioner, who had under his orders 6 Inspectors of Sanitation and Vaccination, 1 Assistant Superintendent of Vaccination, 2 clerks, 6 municipal, 48 local fund and 30 Native State vaccinators and 95 peons. Vaccination was carried on by the Medical Officers of 33 dispensaries. Eleven additional vaccinators for 4 towns, 3 rural circles and 4 Native States are required to strengthen the establishment. Each vaccinator had an area of 346·8 square miles, with an average population of 61,342 persons. They primarily vaccinated 165,048 and revaccinated 4,538 persons, and last year the respective numbers were 135,786 and 3,052. There were 157,913, or 95·68 per cent., successful primary vaccinations, and 3,246, or 71·53 per cent., revaccinations, the rate of protection per mille of population being 31·65 against 26·22 last year. The total cost was Rs. 45,348-5-1, and the average cost per each successful case was annas 4 and pies 6, 9 pies less than last year. Each vaccinator vaccinated 2,019 persons. In the dispensaries 8,841 persons were primarily vaccinated, and 794 were revaccinated. There were 5,898 deaths against 191 last year.

Sátára Collectorate.

62. In the Sátára Collectorate there are 15 vaccinators, but 2 additional ones are required for the towns of Karád and Wái. Each vaccinator had, on an average, a population of 70,823 persons and an area of 332·5 square miles. There were 37,053 persons primarily vaccinated and 612 revaccinated. The successful cases in each were 35,086 or 94·69, and 499 or 61·54 per cent. The rate of protection per mille of population was 33·50 against 29·73 in 1882-83. Each vaccinator vaccinated 2,511 persons. The total cost was Rs. 4,541-7-8, or annas 2-1 per each successful case, like last year. In 7 dispensaries 1,652 persons were primarily vaccinated and 40 were revaccinated. There were 759 deaths against 56 last year.

Belgaum Collectorate.

63. In the Belgaum Collectorate there are 12 vaccinators, and 2 more are required for the towns of Gokák and Athni. Each vaccinator had, on an average, a population of 72,001 persons and an area of 388·1 square miles. The number of persons under each operation was 27,847 and 1,743. The successful cases were 26,955 and 1,182, the percentages of success being 96·79 and 67·81, or 32·57 per mille of population against 27·11 for last year. Each vaccinator vaccinated 2,466 persons. The total cost was Rs. 3,803-2-5, or annas 2-2 per each successful case: last year it amounted to annas 2-5. In 5 dispensaries 1,353 persons were primarily vaccinated and only 10 revaccinated. There were 1,440 deaths against 65 last year.

Dhárwár Collectorate.

64. In the Dhárwár Collectorate there are, in all, 18 vaccinators, each of whom had, on an average, a population of 49,050 persons and an area of 251·9 square miles. There were 28,324 persons primarily vaccinated and 732 revaccinated. The successful cases in each were 27,361 and 504, or 96·60 and 68·85 per cent. Out of every 1,000 persons 31·56 were successfully vaccinated against 26·01 in 1882-83. The average number of vaccinations performed by each vaccinator was 1,614. The total cost was Rs. 5,521-0-9, or annas 3-2 per each successful case, or 6 pies less than last year. In Háveri Dispensary 106 persons were primarily vaccinated and 6 persons were revaccinated. There were 1,728 deaths: last year there were 62.

Kaládgi Collectorate.

65. In the Kaládgi Collectorate there are 9 vaccinators. The Bágalkot town vaccinator attends to the vaccination work in the surrounding villages of the táluka besides the town, and, consequently, a moiety of his pay is defrayed by the municipality as well as by the local fund committee. At least 3 additional vaccinators are required for the tálukas of Hungund, Bádámi and Indi. Each vaccinator had, on an average, a population of 70,944 persons and an area of 639·7 square miles. The number of persons primarily vaccinated was 20,520, and those revaccinated were 456. The successful cases in each were 19,693 or 96·97, and 347 or 76·10 per cent. The rate of protection per mille of population was 31·39 against 24·09 in the preceding year. The average number of vaccinations performed by each vaccinator was 2,331 persons. The total cost was Rs. 2,789-10-8, or annas 2-3 per each successful case against annas 2-11 in 1882-83. Vaccination was carried on in 6 dispensaries—at Bágevádi, Ilkal, Bijápur, Muddebihál and Shindgi and in the Kaládgi Jail, and the number of persons primarily vaccinated was 1,310, and those revaccinated were only 82. There were 1,971 deaths against 8 last year.

Native States in the Southern Deccan Registration District.

66. The States of Kolhápur, the Sátára and the Southern Marátha Jághírs and the Savanúr State, under the Dhárwár Agency, have a collective area of 8,845 square miles and a population of 1,643,619 persons. There were 30 vaccinators, but 4 more are required for Gad Hinglaj, Panhála and Kolhápur Pétha in the Kolhápur States, and for Sángli Táluka in the Sángli States. The Kolhápur States have 1 Assistant Superintendent of Vaccination, and the Jamkhandi State has an Inspector of Sanitation and Vaccination. There were 51,304 persons primarily vaccinated and 995 revaccinated. The successful cases of each kind were 48,818 and 714. The percentages of success were respectively 95·15 and 71·76. The rate per mille of population protected was 30·14 against 24·40 for last year. Each vaccinator, on an average, vaccinated 1,743 persons. The total cost was Rs. 8,938-1-0, or annas 2-11 per each successful case against annas 3-5 last year. In 14 dispensaries—4 in the Kolhápur States, 6 in the Sángli States and 4 at Rámdurg, Mudhol, Miraj and Budgaon—4,420 persons were primarily vaccinated and 656 were revaccinated.

Progress in the Konkan Registration District.

67. The Konkan Registration District comprises the collectorates of Kánara, Ratnágiri, Kolába and Thána, the Native States of Sávantvádi, Janjira and Jawhár, a population of 3,008,477 and an area of 15,337 square miles. It was administered by a Deputy Sanitary Commissioner, who had under his orders 4 Inspectors of Sanitation and Vaccination, 2 clerks, 3 municipal, 44 local fund and 3 Native State vaccinators and 59 peons. Five additional vaccinators are required—4 in town circles and 1 in a Native State. Vaccinations were performed in 24 dispensaries. The area for each vaccinator was 307 square miles, with a population of 60,170 souls. The vaccinators returned 74,354 primary vaccinations and 4,608 revaccinations against 76,951 and 4,604 last year. Under each head the successful cases were respectively 72,070 or 96·93 per cent., and 2,978 or 64·63 per cent. There were 24·95 persons per 1,000 of population successfully operated on, whilst last year there were 25·88. The average number of vaccinations performed by each vaccinator was 1,579, and the average cost per each successful case, calculated on the total cost of Rs. 31,514-12-6, was annas 6·9: last year it was annas 6·5. In the dispensaries 3,873 persons were vaccinated and 483 were revaccinated. There were 3,541 deaths against 1,266 in 1882-83.

Kánara Collectorate.

68. In the Kánara Collectorate there are 13 vaccinators. Each had, on an average, a population of 32,449 persons and an area of 300·8 square miles. Those primarily vaccinated were 12,226 and those revaccinated were 1,036. The numbers of successful cases were respectively 11,024 and 635, the percentages being 90·17 and 61·29. The rate of protection per mille of population was 27·64: last year it was 25·00. Each vaccinator vaccinated 1,020 persons. The total cost was Rs. 3,698-5-6, or annas 5-1 per each successful case against annas 5-6 in the previous year. In 8 dispensaries 1,616 persons were primarily vaccinated and 241 were revaccinated. There were 522 deaths, whilst last year there were 61.

Ratnágiri Collectorate.

69. In the Ratnágiri Collectorate there are 13 vaccinators, but 2 more are required for the towns of Ratnágiri and Vengúrla. Each vaccinator had, on an average, a population of 76,699 persons and an area of 301·7 square miles. The number of primary vaccinations was 25,705 and of revaccinations 1,048. The successful cases were respectively 25,349 and 817, or 98·62 and 77·96 per cent. The rate of protection per mille of population was 26·24, and last year it was 23·34. The average number of vaccinations for each vaccinator was 2,058. The total cost was Rs. 3,896-15-6, or annas 2-5 per each successful case against annas 2-8 last year. At the Dápoli and Vengúrla dispensaries 377 persons were primarily vaccinated and 11} were revaccinated. There were 1,432 deaths against 119 in 1882-83.

Kolába Collectorate.

70. In the Kolába Collectorate there are 6 vaccinators, and an additional one has been entertained since 1st April 1884 for the táluka of Mahád. Each vaccinator had, on an average, a population of 63,608 persons and an area of 249·4 square miles. There were 7,953 primary vaccinations and 510 revaccinations. The successful cases were 7,841 or 98·59 and 276 or 54·12 per cent. The rate of protection per 1,000 was 21·27 against 25·15 last year. The total cost was Rs. 1,931-0-6. The average cost per successful case was annas 3-10 against annas 3 last year. Each vaccinator vaccinated 1,410 persons. In 3 dispensaries 314 persons were primarily vaccinated, and only 2 were revaccinated. There were 343 deaths against 135 in 1882-83.

Thána Collectorate.

71. The Thána Collectorate has 15 vaccinators. The Municipalities of Panvel and Uran have dispensed with the services of a vaccinator since 1st September 1883, but as the dispensary medical officers as well as the táluka vaccinator cannot devote sufficient time to the details of the work, a separate vaccinator for the town of Panvel has lately been provided. Each vaccinator had, on an average, a population of 60,570 persons and an area of 282·9 square miles. Those primarily vaccinated were 18,626, and those revaccinated were 332. The successful cases were 18,137 and 201, or 97·37 and 60·54 per cent. The rate of protection per mille of population was 20·18: last year it was 26·49. Each vaccinator vaccinated 1,264 persons. The total cost was Rs. 4,663-2-0, or annas 4-1 per each successful case against annas 3-1 last year. In 10 dispensaries 1,250 persons were primarily vaccinated and 88 revaccinated. There were 1,244 deaths: in the preceding year there were 951.

Native States in the Konkan Registration District.

72. The States of Sávantvádi, Janjira and Jawhár have a collective area of 1,765 square miles and a population of 299,350 persons. There were 3 vaccinators, and another is required in the Sávantvádi State. Those primarily vaccinated and revaccinated were respectively 9,844 and 1,682, and the successful cases were 9,719 or 98·73, and 1,049 or 60·37 per cent. The protected were 35·97 per mille of population against 34·37 last year. Each vaccinator, on an average, operated on 6,842 persons. The total cost amounted to Rs. 1,154-11-1, and the average cost per each successful case was annas 1-9 against annas 1-8 last year. The Medical Officer of Sávantvádi Dispensary primarily vaccinated 316 persons and revaccinated 41.

Progress in the Presidency Circle.

73. The city of Bombay is the Presidency Circle. It has an area of 22 square miles, with a population of 773,196 persons. It was administered by a Superintendent of Vaccination paid by Government, who had under his orders an Assistant Superintendent, 4 clerks, 1 head vaccinator, 6 public vaccinators, and 2 assistants, 13 kárkúns and 3 peons, all paid by the Municipality. There were 15,823 primary vaccinations and 2,345 revaccinations against 22,403 and 14,452 last year. The successful cases were respectively 14,911 and 2,071, or 94·24 and 88·32 per cent. The rate per mille of population protected was 21·96 against 42·41 last year. Each vaccinator vaccinated 2,271 persons. The total cost was Rs. 19,936-5-9, or Rs. 1-2-9 per each successful case: last year it was annas 9-2. Vaccination was practised by the Medical Officers in the House of Correction and Common Jail. They revaccinated 371 persons. There were 435 deaths against 1,128 last year.

Progress in the Eastern Gujarát Registration District.

74. The Eastern Gujarát Registration District comprises the collectorates of Surat, Broach, Kaira, Panch Mahâls and Ahmedabad and the Native Sates of Mahi Kántha, Rewa Kántha, Cambay, the Surat Agency and Jámbughoda. It has a population of 4,162,314 persons and an area of 27,712·075 square miles. It was administered by a Deputy Sanitary Commissioner, who had under his orders 5 Inspectors of Sanitation and Vaccination, 2 clerks, 7 municipal, 37 local fund and 20 Native State vaccinators and 71 peons. The area for each vaccinator was 433·001 square miles, with a population of 65,036. Thirteen more vaccinators are required—7 for town circles, 1 for a rural circle, 2 for 2 of the more populous tálukas, and 3 for the Native States of Lúnáváda, Sunth and Kadána. Out of 127,047 primary vaccinations and 7,317 revaccinations there were 123,152 or 96·93, and 4,093 or 55·25 per cent., successful. Last year the numbers primarily vaccinated and revaccinated were respectively 120,477 and 2,264. The protected were 30·56 per mille of population: last year they were 28·29. Each vaccinator vaccinated 2,099 persons. The total expenditure was Rs. 38,460-5-0, and the average cost per each successful case was annas 4-10, whilst last year it was annas 4-11. In 17 dispensaries 3,087 persons were primarily vaccinated and 54 were revaccinated. The deaths were 798 against 1,081 last year.

Surat Collectorate.

75. In the collectorate of Surat there are 10 vaccinators, but 1 more is required for Bulsár town. An additional vaccinator has been employed since 1st April 1884 to work between the tálukás of Mándvi and Bárdoli. Each vaccinator had, on an average, a population of 61,420 persons and an area of 166·2 square miles. The number of persons primarily vaccinated was 17,075, and the successful cases were 16,247, or 95·15 per cent. The number of persons revaccinated was 295, and the successful cases were 103, or 34·92 per cent. Protection was afforded to 26·62 out of every 1,000 of population: last year the rate was 31·07. Each vaccinator, on an average, operated on 1,737 persons. The total cost was Rs. 3,082-2-11, and the average cost per each successful case was annas 3, whilst in the preceding year it was annas 2-4. In 4 dispensaries 751 persons were primarily vaccinated and 2 were revaccinated. There were 498 deaths, and last year there were 943.

Broach Collectorate.

76. In the collectorate of Broach there are 6 vaccinators. Two additional vaccinators are wanted for the town of Jambusar and for the Hánsot Petha. Each vaccinator had, on an average, a population of 54,488 persons and an area of 242·2 square miles. The primarily vaccinated were 11,037 and the revaccinated were 5,327. Of these the successful cases were 10,411 and 2,859 respectively, or 94·33 and 53·67 per cent. The rate of protection per 1,000 was 40·59 against 31·04 last year. Each vaccinator vaccinated 2,727 persons, and the average cost per each successful case was annas 2-3 calculated on the total cost of Rs. 1,879-3-9: last year each successful case cost annas 2-11. In 3 dispensaries 111 persons were primarily vaccinated and 14 were revaccinated. There were 68 deaths, whilst last year there were 75.

Kaira Collectorate.

77. In the Kaira Collectorate there are 9 vaccinators, and 5 more are required—1 in each of the towns of Kaira, Borsad and Kapadvanj and 1 each for the tálukas of Nadiád and Borsad. Each vaccinator had, on an average, a population of 89,422 persons and an area of 178·7 square miles. Out of 25,044 persons primarily vaccinated and 213 revaccinated 24,586 or 98·15, and 98 or 46·01 per cent. were successfully operated on. The protected were 30·67, and in 1882-83 they were 24·98 per 1,000 of population. Each vaccinator, on an average, vaccinated 2,806 persons. The total cost amounted to Rs. 2,830-3-8, or annas 1-10 per each successful case: last year it was annas 2-3. In 5 dispensaries there were 1,105 persons primarily vaccinated and 8 were revaccinated. There were 40 deaths: last year there were 5.

Panch Mahâls.

78. In the Panch Mahâls there are 5 vaccinators, and 2 additional ones are required for the towns of Godhra and Dohad. Each vaccinator had, on an average, a population of 51,096 persons and an area of 322·3 square miles. There were 9,121 primary vaccinations and 363 revaccinations. Of these the successful were 8,945 and 307, or

98·07 and 84·57 per cent. The rate of protection per mille of population was 36·21, and in the preceding year it was 30·75. Each vaccinator vaccinated 1,897 persons. The total expenditure was Rs. 1,562-3-7, or annas 2-7: last year it was annas 3-2. The Medical Officer of Godhra Dispensary primarily vaccinated 587 and revaccinated 9 persons. There were only 5 deaths last year, whilst this year there were 70 deaths.

Ahmedabad Collectorate.

79. In the Ahmedabad Collectorate there are 14 vaccinators, but another is wanted for the town of Gogha. Each vaccinator had, on an average, a population of 61,166 persons and an area of 272·9 square miles. There were 28,405 persons primarily vaccinated and 859 revaccinated. The successful cases were 27,527 and 477, or 96·91 and 55·53 per cent. The rate of protection per mille of population was 32·70 against 31·64 in the previous year. Each vaccinator vaccinated 2,090 persons. The total cost was Rs. 4,275-7-5. The average cost per successful case was annas 2-5, the same as in 1882-83. In 3 dispensaries 331 persons were primarily vaccinated and none revaccinated. There were 122 deaths, whilst last year there were 52.

Native States in the Eastern Gujarát Registration District.

80. The States of Mahi Kántha, Rewa Kántha, Cambay, the Surat Agency and Jámbughoda have a collective area of 17,368·375 square miles and a population of 1,282,422 persons. In Sachín and Jámbughoda States vaccination is performed by the vaccinator of the Chorási Táluka of the Surat Zilla, and in the latter by the vaccinator of Hálol, Panch Mahals. There were 20 vaccinators employed in all these States, and 3 more are required—1 in each of the States of Lúnávada, Sunth and Kadána. The numbers of primarily vaccinated were 35,342 and those revaccinated were 249; of these 34,453 and 190, or 97·48 and 76·31 per cent., were successfully operated on. Protection was afforded to 27·01 per mille of population: last year the rate was 25·36. Each vaccinator, on an average, operated on 1,780 persons. The local fund vaccinators in Sachín and Jámbughoda vaccinated 1,023 and 11 persons under each kind of operation; of these 983 or 96·09 and 9 or 81·82 per cent. were successfully operated on. Protection was afforded to 44·76 persons per 1,000 of population against 41·79 in the preceding year. The total cost in all the States was Rs. 5,217-7-3, or annas 2-5 against annas 2-6 last year, per each successful case. The Medical Officer of the Sádra Dispensary, in Mahi Kántha States, primarily vaccinated 202 persons and revaccinated 21.

Progress in the Western Gujarát Circle.

81. The Western Gujarát Circle comprises the Native States of Káthiawár and Pálanpur. It has an area of 27,256·48 square miles and a population of 2,920,377 persons. It was administered by a Superintendent of Vaccination, who had under his orders 2 Assistant Superintendents, 2 clerks, 2 Government and 41 Native State vaccinators and 49 peons. The average number of square miles for each vaccinator was 633·87 and the average population of his area 67,916. Vaccination was carried on in 16 dispensaries. Two more vaccinators and 1 candidate are still required in the States of Pálanpur. The number of primary vaccinations and revaccinations were respectively 102,573 and 7,166 against 97,311 and 2,443 in the preceding year. The successful cases were 94,062 and 4,956, their percentages being 91·70 and 69·16. The rate of protection was 33·91 per 1,000 of population: last year it was 31·61. Each vaccinator vaccinated 2,552 persons. The total cost was Rs. 28,966-7-7, or annas 4-8 per each successful case. In the preceding year it was annas 5-1. In dispensaries there were primarily vaccinated 2,612 persons, and 524 were revaccinated.

Province of Káthiáwár.

82. The States of Káthiáwár have a collective area of 19,256·48 square miles and a population of 2,343,899 persons. There were 36 vaccinators, who primarily vaccinated 83,254 persons and revaccinated 6,170. The successful cases were 75,758 and 4,164, or 91·00 and 67·49 per cent. Protection was afforded to 34·10 per 1,000 of population against 32·88 last year. The average per each vaccinator was 2,484 operations, and the average cost per each successful case was annas 2-10 calculated on the total cost of Rs. 14,091-2-2: last year the average cost was annas 2-9. In 16 dispensaries 2,612 persons were primarily vaccinated and 524 revaccinated.

Pálanpur States.

83. The Pálanpur States have an area of 6,041 square miles and a population of 576,478 persons. There were 7 vaccinators, and 2 more are required, as also a candidate vaccinator. The number of persons primarily vaccinated was 19,319, and that of the revaccinated was 996. The successful cases were 18,304 and 792, or 94·75 and 79·52 per cent. The rate of protection per mille of population was 33·13 against 26·43 in the preceding year. The average work per each vaccinator was 2,902 persons. The total cost was Rs. 2,083-14-6, or annas 1-9 per each successful case: last year it was annas 2-2.

Progress in the Sind Registration District.

84. The Sind Registration District comprises the collectorates of Karáchi, Hyderabad and Shikárpur, the Thar and Párkar, the Upper Sind Frontier and the Khairpur State. It has an area of 54,123·01 square miles and a population of 2,542,976. It was administered by a Deputy Sanitary Commissioner, who had under his orders 1 Superintendent of Vaccination, 6 Inspectors of Sanitation and Vaccination, 2 clerks, 6 municipal, 49 local fund and 3 Native State vaccinators and 67 peons. Three more are required for the rural circles in the Karáchi Collectorate and 1 in the Khairpur State. Vaccination was carried on in 20 dispensaries. Each vaccinator had an area of 933·16 square miles, with a population of 43,844 persons. Those primarily vaccinated numbered 84,120, and the revaccinated were 21,467, against 81,563 and 29,652 in the preceding year. The successful cases were respectively 80,041 and 14,652. The rates of success were 95·15 and 68·25 per cent., and that of protection was 37·24 per 1,000 of population. It was 38·75 last year. Each vaccinator on an average vaccinated 1,820 persons. The total cost was Rs. 42,223-14-1, and for each successful case it was annas 7-2, or 1 pie more than last year. There were 2,227 persons primarily vaccinated and 264 revaccinated by Medical Officers of 20 dispensaries. There were 905 deaths against 463 in the previous year.

Karáchi Collectorate.

85. In the Karáchi Collectorate there are 11 vaccinators, and an additional vaccinator has been employed since 1st April 1884; but 3 more are required, so as to have 1 for each rural circle. Each vaccinator had, on an average, a population of 43,517 persons and an area of 1,283·22 square miles. The number primarily vaccinated was 16,458 and the revaccinated were 4,226. The successful cases were respectively 15,759 and 2,805 or 95·75 and 66·37 per cent., whilst 38·78 per 1,000 of population were protected: last year the rate was 41·60. Each vaccinator vaccinated 1,880 persons. The total cost was Rs. 3,909-14-10, or annas 3-4 per each successful case: in the preceding year it was annas 3-3. In 6 dispensaries 507 persons were primarily vaccinated and 19 were revaccinated. The deaths were 215 against 153 in the previous year.

Hyderabad Collectorate.

86. In the Hyderabad Collectorate there are 14 vaccinators, each of whom had, on an average, a population of 53,902 persons and an area of 644·97 square miles. There were 23,352 persons primarily vaccinated and 3,079 revaccinated; of these 21,853 or 93·58 and 1,968 or 63·92 per cent. were successfully operated on. The rate of protection per mille of population was 31·57: last year it was 31·22. Each vaccinator, on an average, vaccinated 1,888 persons. The total cost amounted to Rs. 5,017-10-9, which gives annas 3-4 as the cost per each successful case, or 3 pies less than last year. In 7 dispensaries 624 persons were primarily vaccinated and 27 were revaccinated. There were 659 deaths against 284 in the preceding year.

Thar and Párkar.

87. In the Thar and Párkar there are 7 vaccinators, each of whom had, on an average, a population of 29,049 persons and an area of 1,818 square miles. They primarily vaccinated 9,606 and revaccinated 4,356 persons. The successful cases were 9,315 or 96·97, and 3,224 or 74·01 per cent. The protected were 61·66 per 1,000 against 68·77 in the preceding year. Each vaccinator, on an average, vaccinated 1,995 persons. The total cost was Rs. 2,627-12-10, or annas 3-4 per successful case: last year it was annas 3-1. In 4 dispensaries 304 persons were primarily vaccinated and 28 were revaccinated. There were 28 deaths, and last year there were 8.

Shikárpur Collectorate.

88. In the Shikárpur Collectorate there are 20 vaccinators, each of whom has, on an average, a population of 42,649 persons and an area of 500·04 square miles. They primarily vaccinated 27,256 and revaccinated 7,663 persons. The successful cases were 25,869 or 94·91, and 5,314 or 69·35 per cent. The protected were 36·56 per mille of population against 39·45 in the preceding year. Each vaccinator vaccinated 1,746 persons. The total cost was Rs. 7,149-1-3, or annas 3-8 per each successful case: last year it was annas 3-6. In 2 dispensaries there were 319 persons primarily vaccinated and 184 revaccinated. There were 2 deaths against 18 last year.

Upper Sind Frontier.

89. In the Upper Sind Frontier there are 3 vaccinators, each of whom has, on an average, a population of 41,394 persons and an area of 713·6 square miles. They primarily vaccinated 4,321 persons and revaccinated 2,138. The successful cases were 4,200 and 1,337, or 97·20 and 62·54 per cent. The rate of protection per mille of population was 44·59, and last year it was 37·90. The average number of operations for each vaccinator was 2,153, and the cost of each successful case was annas 3-8, calculated on the total cost of Rs. 1,276-10-9. In the preceding year each successful case cost annas 4-1. There was 1 death this year: last year there was none.

Khairpur State.

90. The Khairpur State has an area of 6,109 square miles and a population of 129,153 persons. It has 3 vaccinators. They primarily vaccinated 3,127 and revaccinated 5 persons; of these 3,045 or 97·38 and 4 or 80·00 per cent. were successfully operated on. The protected were 23·61 per mille of population: last year they were 2,128. Each vaccinator, on an average, vaccinated 1,044 persons. The total cost was Rs. 1,317, or annas 6-11 per each successful case against annas 7-8 in 1882-83.

Progress in the Baroda Circle.

91. The States of Baroda have a population of 2,185,005 persons and an area of 8,570 square miles. It was administered by the Chief Medical Officer employed by the Darbár, who had under his orders 3 Inspectors, 31 vaccinators and 34 peons. Each vaccinator has, on an average, 276 square miles and a population of 70,484. There were 66,992 persons primarily vaccinated and 460 revaccinated against 63,933 and 249 in 1882-83. The successful cases were 64,540 and 336, or 96·34 and 73·04 per cent. The rate of protection per mille of population was 29·69: last year it was 28·33. Each vaccinator vaccinated 2,176 persons. The total cost was Rs. 11,913-5-11, or annas 2-11 per each successful case against annas 3-1 in 1882-83. Vaccinations were performed in 16 dispensaries, whilst last year it was carried on in 19. In these dispensaries 3,736 persons were primarily vaccinated and 6 were revaccinated.

Progress in the Cutch Circle.

92. The State of Cutch has a population of 512,084 persons in an area of 6,500 square miles. It was administered by the Medical Officer to H. H. the Ráo of Cutch, who had under his orders an Assistant Superintendent of Vaccination, 17 vaccinators and 19 peons. Each vaccinator has an average population of 30,123 and an area of 382 square miles. The number of persons primarily vaccinated was 18,803 and that of the revaccinated was 264 against 20,619 and 339 last year. The successful cases were 18,638 and 231, or 99·12 and 87·50 per cent. The rate of protection per mille of population was 36·85: last year it was 40·46. Each vaccinator operated, on an average, on 1,122 persons. The total expenditure was Rs. 7,419-9-7, and the average cost per each successful case was annas 6-3: in the preceding year it was annas 5-11.

Progress in Aden.

93. Aden has an area of 11·6 square miles and a population of 34,860 persons. The municipality defrays the cost of 1 vaccinator and 1 peon. This vaccinator works under the supervision of the Civil Surgeon. There were 581 persons primarily vaccinated and 4 revaccinated against 598 and 5 in the preceding year. Of the primary vaccinations 425, or 73·15 per cent., were successful, and of the revaccinations 2, or 50·00 per cent., were successful. The rate of protection afforded was 12·25 per 1,000 of population: last year it was 12·02. The total cost was Rs. 425, and the average cost per each successful case was annas 15-11: in the preceding year it was annas 15-8. In the dispensary of Shaik Othman 162 persons were primarily vaccinated and 2 were revaccinated.

Progress in Muscat and Bushire.

94. In Bassadore and Zánzibár there were no operations this year. There were only 117 primary vaccinations in Muscat against 271 in the preceding year. The successful cases were 98 or 83·76 per cent. In the Residency Dispensary, Bushire, there were 341 persons primarily vaccinated against 88 in 1882-83. Of the 341 cases 298 were successful, or 87·39 per cent.

Tour of Deputy Sanitary Commissioners and Superintendent of Vaccination.

95. (*a*). In the Northern Deccan Registration District the Deputy Sanitary Commissioner went through the tálukas of Igatpuri, Násik and Sinnar in Násik; all the tálukas of Ahmednagar except Jámkhed and Akola; the tálukas of Khed, Mával, Bhimthadi, Sirúr, Junnar and Haveli in Poona; and the tálukas of Mádha and Pandharpur in Sholápur Zilla. Khándesh was not visited this year. He travelled over 2,598 miles in 195 days, visited 222 villages, and inspected 9,805 children.

(*b*). In the Southern Deccan the Deputy Sanitary Commissioner went through the tálukas of Belgaum, Sampgaon, Parasgad and Khánápur in Belgaum; all the tálukas of Dhárwár, except Hángal, Ránibennur, Kod and Karajgi; the tálukas of Bágalkot and Bádámi in Kuládgi Zilla. Sátára was not visited this year. The Native States passed through were Savanúr, Mudhol and Rámdurg. The total number of children inspected was 8,980 in 176 villages. The number of miles travelled was 1,707 in 138 days.

(*c*). The Deputy Sanitary Commissioner of the Konkan Registration District passed through the tálukas of Kárwár, Akola, Kumta, Honávar, Sirsi, Siddápur and Bhatkal in Kánara; all the tálukas of Ratnágiri, except Chiplún and Khed; the táluka of Alíbág in Kolába Zilla and the tálukas of Panvel, Sálsette and Kalyán of Thána Zilla. He passed through the Native States of Sávantvádi and Janjira. He inspected 6,027 children in 95 villages. The number of miles travelled was 1,734 in 130 days.

(*d*). The Deputy Sanitary Commissioner in the Eastern Gujarát Registration District went through all the tálukas of Surat, except Chorási and Jalálpor; the tálukas of Nadiád and Thásra in Kaira; all the tálukas of Panch Mahals, except Kálol and the tálukas of Daskroi, Parántij, and Ahmedabad city in Ahmedabad Zilla. Broach was not visited this year. He also went through the Native States of Bánsda, Jámbughoda and Chota Udepur in Rewa Kántha; Idar State, Sábar Kántha and Nánimárwád in Mahi Kántha. He travelled over 2,309 miles in 173 days, and saw 8,970 children in 409 villages.

(*e*). In the Western Gujarát Circle the Superintendent of Vaccination went through the States of Limbdi, Jhinjhuváda, Sáyla, Jasdan, Dhrángadra, Wadhwán and Vánkáner in the Jhálávád Pránt; and the States of Sultánpur, Dhoráji, Morvi, Mália, Dhrápha and Rájkot in the Hálár Pránt; the States of Junágad and Jetpur in Sorath Pránt and Botád in Gohelvád Pránt; the States of Pálanpur and Dántivara in Pálanpur State. He travelled over 1,003 miles in 90 days and inspected 34,188 children in 180 villages.

(*f*). In Sind the Deputy Sanitary Commissioner went through the tálukas of Sehwan, Mánjhanda, Ghorábári, Jati, Dádú, Tatta, Sujáwal, Mirpur Sákro, Kotri and Karáchi town of the Karáchi Collectorate; the tálukas of Hyderabad, Hála, Sákrand and Hyderabad town in the Collectorate of Hyderabad, and the tálukas of Naushahro, Rato-dero, Lárkhána, Tigar, Shikárpur, Sukkur, Sijáwal, Kambar, Labdarya, Mehar and Kakar in the Shikárpur Collectorate; the tálukas of Kashmor, Thul, Jacobabad in Upper Sind Frontier, and the State of Ladhigagan in the Khairpur State. Thar and Párkar was not visited this year. He inspected 16,089 children in 322 villages, and travelled over 2,406 miles in 57 days. The 5 Deputy Sanitary Commissioners and the Superintendent of Vaccination have visited all the districts, except Khándesh, Sátára, Broach and Thar and Párkar. The Native States that were not visited this year are Akalkot, Modnimb, Miraj, Kurundvád, Sátára Jághirs, Jawhár, Dharampor, Cambay and Sachin. There were collectively 320 encampments, 806 travelling days, 11,758 miles travelled, 1,404 villages visited, and 84,059 children inspected.

96. The Compulsory Vaccination Act (I of 1877) has been in force for 5 years, and it is worked fairly well. The following table shows the progess in the infants protected during the last 8 years, the first 2 being before, and the last 5 after, the introduction of the Act :—

The Bombay Vaccination Act No. I of 1877.

Years.		Births returned as having been registered.	Deaths registered among Children under 1 year old.	Children available for Vaccination.		Children under 1 year successfully vaccinated.		
				Births minus Deaths.	At the rate of 31 per 1,000 of Population	Number.	Ratio per 100 on those in Column 4.	Ratio per 100 on those in Column 5.
Before the introduction of the Act.	1876-77	13,466	6,179	7,287	19,977	9,840	135·03	49·26
	1877-78	13,720	7,781	5,939	19,977	7,212	121·43	36·10
After the introduction of the Act.	1878-79	13,896	6,417	7,479	19,977	6,558	87·69	32·83
	1879-80	14,341	5,274	9,067	19,977	7,825	86·30	39·17
	1880-81	16,997	6,104	10,893	19,977	10,416	95·62	52·14
	1881-82	16,381	6,279	10,102	23,969	12,017	237·27	50·14
	1882-83	15,094	5,720	9,374	23,969	14,940	159·38	62·33
	1883-84	14,932	6,514	8,418	23,969	12,331	146·48	51·45

The slight decrease in the number of infants protected is partly attributable to the large number of vaccinations owing to the prevalence of an epidemic of small-pox during the year 1882-83.

97. This is the fourth complete year in which the Karáchi Vaccination Act (No. IV of 1879) has been worked in that city, and it will be seen from the following table that great improvement has been effected in the number of infants protected :—

Karáchi Vaccination Act.

Years.	Births returned as having been registered.	Deaths registered among Children under 1 year old.	Children available for Vaccination.		Children under 1 year successfully vaccinated.		
			Births minus Deaths.	At the rate of 31 per 1,000 of Population	Number.	Ratio per 100 on those in Column 4.	Ratio per 100 on those in Column 5.
1880-81	1,878	309	1,569	2,118	1,917	122·18	90·51
1881-82	2,405	489	1,916	2,118	2,516	131·32	118·79
1882-83	2,985	514	2,471	2,118	2,827	114·41	133·47
1883-84	3,273	728	2,545	2,118	2,683	105·42	126·68

98. The Superintendent of Vaccination, Western Gujarát Circle, says that "revaccination has made a great stride. This is entirely due to the fact that I take down all the names of unprotected children requiring reprotection in every village and town I visit and give them to the vaccinators. The parents then seldom refuse. I have also called upon the Assistant Superintendents to act accordingly. To this I also attribute the large increase in primary vaccinations."

Suggestion for the more effectual spread of vaccination.

He has also addressed a circular to the Political officers requesting them "to use their influence with Native States to insist upon their dispensaries," which are 65 in number, "keeping up lymph so as to be able to give it to vaccinators on the appearance of an epidemic near head-quarters." He again notices the utter ignorance of many of the present dispensary medical officers, and urges the necessity of placing these dispensaries under the supervision of a Government Officer. In this recommendation I heartily concur.

The Chiefs of Káthiáwár have sanctioned the entertainment of a female vaccinator. An educated woman is now learning the art of vaccination, and when she has acquired that knowledge she will visit the courts of all the Chiefs.

In Cutch the salary of a vaccinator is adjusted according to the amount of work he performs. He is also allowed a reward of half an anna for each operation in excess of a fixed number varying from 90 to 140 per month according to the population of the villages allotted to him. If he does not reach the fixed number he is fined an anna for each number deficient. The system of paying batta to a vaccinator at the rate of Rs. 5 a month in a lump sum at the end of a year, if the operations exceed 2,000 in number, prevails in Káthiáwár, and it has been proposed in the Southern Deccan Registration District to give at the close of each year a reward of Rs. 10 to the most deserving of the 3rd class vaccinators and of Rs. 15 to the most deserving of the 2nd and 1st class vaccinators. I am glad to state that the Collectors of Sátára, Belgaum, Dhárwár and Kaládgi have expressed their willingness to make the requisite provision in the Local Fund Budget. It would add greatly to the efficiency and progress of vaccination if some such system of remuneration were adopted in the other Collectorates of the Presidency.

As stated in last year's report Dr. Peacocke, the Acting Deputy Sanitary Commissioner, Sind Registration District, suggested that a class for teaching vaccination should be formed at Karáchi. He proposed that an annual sum of Rs. 400 should be raised for the pay of ten candidates at the rate of Rs. 20 per mensem during the course of two months' training. His proposal was laid before the Presidents of the Local Fund Committees who, with the exception of the Upper Sind Frontier, from whom a reply has not yet been received, have promised to contribute their quota towards the fund.

SECTION IV.

SANITARY WORKS—MILITARY.

This section consists of extracts taken from the annual cantonment reports of the Executive Engineers in charge of military stations.

The reports from the Quetta District have been received for the first time.

The actual outlay on sanitary works (Military) during 1883 amounted to Rs. 1,74,733; of this sum Rs. 95,885 were expended at Jacobabad for constructing new Native Infantry lines. At Ahmedabad Rs. 34,580 were spent, of which Rs. 34,262 were for constructing a hospital for British Troops. At Nasirabad Rs. 21,338 were expended, of which Rs. 5,049 were for constructing new open drains in the Sadar Bázár, and Rs. 2,522 for renewing floors and cleaning walls of Royal Artillery stables. At Mhow Rs. 4,275 were spent, of which Rs. 699 were for excavating floor and removing soil of the sick horse stables of 17th Lancers, Rs. 861 on stable No. 16 occupied by A Troop 17th Lancers, and Rs. 1,528 were spent on stable No. 18 after a case of Loodhiana Fever. At Poona Rs. 4,164 were spent, of which Rs. 2,097 were for converting the block of six cells into isolated wards for the station hospital, and Rs. 1,663 for preserving and watering trees that have been planted in connection with sanitary improvements to Ghorpuri Barracks.

The following table shows the total amount spent on sanitary works (Military) at each station during the year 1883 :—

Stations.	Actual Outlay.	Stations.	Actual Outlay.
	Rs.		Rs.
Bombay	1,241	Ahmednagar	...
Kolába	2,829	Sirúr	...
Thána	...	Purandhar	165
Devláli	709	Poona	4,164
Surat	...	Kirkee	693
Baroda...	150	Khandála	25
Ahmedabad	34,580	Sátára	1,453
Rájkot	...	Kolhápur	...
Bhuj	...	Belgaum	43
Deesa	247	Dhárwár	...
Mount Abu	1,145	Karáchi	1,356
Nasirabad	21,338	Hyderabad (Sind)	318
Neemuch	280	Jacobabad	95,885
Mehidpur	...	Aden	799
Agar	...	Sibi	...
Indore	...	Sharigh	...
Mhow	4,275	Gundakinduff	...
Asirgarh	...	Dakki	...
Málegaon	228	Bolan	2,810

BOMBAY DISTRICT.

Stations.—BOMBAY, KOLÁBA, THÁNA, AND DEVLÁLI.

BOMBAY.

Mr. M. C. Marzban, C.E., Acting Executive Engineer, Presidency, reports that the following work was executed during the year 1883 :—

Laying on water-supply to the Arthur and Pilot Bandar Coal Depôts at Colába.—Water has been laid on at the coal depôt to be at hand in cases of fire.

Estimated cost	...	...	... Rs. 2,439 0 0
Actual cost	...	...	... „ 1,240 6 11

COLÁBA.

Lieutenant-Colonel Merriman, R.E., Executive Engineer, Bombay Defences, states that the following sanitary works were undertaken during the year 1883 :—

Constructing a semi-permanent Latrine for the Single Men's Barrack, Colába Depôt.—Semi-permanent latrine containing 8 seats constructed with bamboo wall, teak round posts and Mangalore tiles.

Estimated cost	...	...	... Rs.	699 0 0
Actual cost	...	...	... „	698 0 7

Constructing wide Cadjan Verandah in front and rear of the Married Officers' Sanitarium.—Ten feet wide verandah constructed in front and rear with round teak posts, plates, round rafters and cadjans. The ground is raised with dry metal.

Estimated cost	...	...	... Rs.	259 0 0
Actual cost	...	...	... „	256 15 11

Constructing additional Cook-house for the Orderly Room Clerk's House and providing 2 glazed Windows in the existing Cook-room, Colába Depôt.—A cook-room 10′ x 10′ x 10′ in interior dimensions constructed with one brick thick wall, teak posts, plates, round rafters and Mangalore tiles.

Estimated cost	...	...	... Rs.	344 0 0
Actual cost	...	...	... „	322 12 6

Providing a Fowl-house in Bungalow No. 38 in Marine Lines.—A fowl-house 10½′ x 10½′ in interior dimensions constructed with a foundation of rubble stone and lime and split bamboo wall, teak round posts and cadjan roof.

Estimated cost	...	...	... Rs.	86 0 0
Actual cost...	...	...	... „	79 4 2

Providing a Masonry and Mangalore Pipe Drain between Nos. 20 and 21 in Marine Lines.—The drain has been constructed with Mangalore pipe 7″ diameter for a length of 145 square feet and the remaining length of 135 square feet constructed with rubble stone and lime masonry which is also plastered with lime and coated with cement.

Estimated cost	...	...	... Rs.	250 0 0
Actual cost	...	...	... „	205 14 3

Rupees 100 were paid for bringing water into the Government bungalow in the Marine Lines.

Providing and fixing Cloth Ceiling, &c., in Bungalow No. 5 occupied by Transport Sergeant, Apollo Bandar.—Cloth ceiling provided to the room and fixed on teak battens 1½ x 1½″ placed 18″ apart from centre to centre.

Estimated cost	...	...	... Rs.	88 0 0
Actual cost...	...	...	... „	77 10 0

Filling in Well No. 23 at Upper Colába.—Filled in with rubbish and earth.

Estimated cost	...	...	... Rs.	18 0 0
Actual cost...	...	...	... „	17 11 2

Planting Trees at Colába.—One hundred trees planted.

Estimated cost	...	...	... Rs.	1,155 0 0
Actual cost	...	...	... „	1,070 14 11

THÁNA.

Lieutenant Waller, R.E., Acting Executive Engineer, reports that no sanitary work was carried on during the year 1883.

DEVLÁLI.

Major Osborn, R.E., Executive Engineer, Násik Division, states that the following sanitary works were undertaken during the year 1883 :—

Constructing a latrine and cook-room to the Chief Constable's quarters at Camp Devláli

Estimated cost	...	...	... Rs.	300
Actual cost	...	...	... „	293

Pulling down Abyssinian Hut No. 1.—A case of cholera having occurred in this hut in May 1883, Government ordered the hut to be pulled down and destroyed at once.

Estimatel cost	...	...	... Rs.	276
Actual cost	...	...	... „	231

Constructing temporary Latrines for British Troops.—These latrines (12 in number) have been constructed for the use of troops quartered in tents.

Estimated cost	...	...	... Rs.	192
Actual cost	...	...	... „	185

NORTHERN DIVISION OF THE ARMY.

Stations.—SURAT, BARODA, AHMEDABAD, RÁJKOT, BHUJ, DEESA, AND MOUNT ABU.

SURAT.

Mr. White, C.E., Executive Engineer, Surat, reports that no sanitary work was executed during the year under report.

BARODA.

Major Cruickshank, R.E., Executive Engineer, Ahmedabad District, reports that the following works were executed during the year 1883 :—

Constructing a temporary shed for the protection from sun and rain of the sentry over the Magazine at Baroda.

Estimated cost	...	...	...	... Rs. 57
Actual cost	...	...	...	... „ 57

Fixing perforated zinc sheets to the windows of meat hanging room at Baroda.

Estimated cost	...	...	...	... Rs. 41
Actual cost	...	...	...	... „ 37

Temporary urinary for the use of Troops at Baroda.—The walls are of bamboo trellis work fixed to round jungle wood posts, and the roof is single-tiled.

Estimated cost	...	...	...	... Rs. 59
Actual cost	...	...	...	... „ 56

AHMEDABAD.

Major Cruickshank, R.E., Executive Engineer, Ahmedabad Division, reports that during the year 1883 no works of sanitary importance were carried on in the Cantonment of Ahmedabad, but the following works which were in progress last year have been continued :—

Hospital for British Troops, Ahmedabad.—This work has been in progress since 1881.

Estimated cost	...	...	...	... Rs. 1,80,909
Actual cost during 1883	...	...	...	„ 34,262

Laying on water to the Bakery at Ahmedabad.—This work which was in progress last year has been completed.

Estimated cost	...	...	...	... Rs. 499
Expenditure in 1883		...	...	... „ 318
Actual cost	...	...	...	... „ 449

RÁJKOT.

The Superintendent, Public Works, Rájkot, reports that no sanitary work was undertaken during the year 1883.

BHUJ.

The Superintendent, Public Works, Bhuj, reports that no sanitary work was undertaken during the year 1883.

DEESA.

The Executive Engineer, Military Works and Roads Division, reports that the following sanitary works were carried out during the year 1883.

Stone flooring about 6′ × 6′ with shallow drain and cesspool for filter stands outside the canteen in the Royal Artillery lines.

Estimated cost	...	...	...	Rs. 27 8 0
Actual outlay	...	...	...	„ 27 7 7

Providing stone metal and moorum to the floors of the Royal Artillery stables.

Estimated cost	...	...	...	Rs. 147 8 0
Actual outlay	...	...	...	„ 147 0 0

Making concrete floors to 9 urinals in the European Infantry lines.

Estimated cost	...	...	...	Rs. 70 8 0
Actual outlay	...	...	...	„ 72 7 7

MOUNT ABU.

The Executive Engineer, Military Works and Roads Division, Abu, reports that the following sanitary works were carried out during the year under report.

Providing Crawford's patent privy of six seats for the use of natives in the employ of dwellers in the double-storied patcherrie.

Estimated cost	...	...	...	Rs. 296 0 0
Actual cost	...	...	...	„ 362 11 8

Erecting a latrine for the girls at the Lawrence School. In progress.

Estimated cost	... Rs. 202
Actual cost to December 1883 ...	... „ 48

Supplying a covering to the well near the cricket ground.

Estimated cost	... Rs. 37
Actual cost	... „ 37

Constructing a latrine for servants attached to the General Officer's quarters.

Estimated cost	... Rs. 168 0 0
Actual cost	... „ 138 13 5

Erecting a urinary near the Library Barrack.

Estimated cost	... Rs. 32 0 0
Actual cost...	... „ 33 11 9

Providing wooden ceiling in the Medical Store room at the Station Hospital.

Estimated cost	... Rs. 120 0 0
Actual outlay to December 1883 ...	... „ 80 10 0

Erecting a day room for the use of the elder girls of the Lawrence School.

Estimated cost	... Rs. 402 0 0
Actual cost	... „ 331 0 4

Moya grass in the vicinity of the barracks was removed at a cost of Rs. 89, and the drains cleared for Rs. 24.

MHOW DIVISION OF THE ARMY.

Stations.—NASIRABAD, NEEMUCH, MEHIDPUR, AGAR, INDORE, MHOW, AND ASIRGARH.

NASIRABAD.

The Executive Engineer, Nasirabad, reports that the following sanitary works were executed during the year 1883 :—

Nasirabad water-supply from the Danta Reservoir.—This scheme has been in hand since October 1875. Water can be now drawn off throughout the European Infantry, Royal Artillery, Native Infantry, and Native Cavalry lines. Water has been laid in all the wash-houses and the Artillery and Cavalry horse troughs.

Estimated cost	... Rs. 2,58,749
Actual cost during 1883... ...	... „ 13,087
Total cost	.. „ 2,59,267

Constructing new open drains along the cross roads of the Sadar Bázár.

Estimated cost	... Rs. 4,992
Actual outlay	... „ 5,049

Renewing Floors and cleaning Walls, &c., of Royal Artillery Stables.—This work was undertaken to check the spread of Loodhiana disease among the Artillery horses.

Estimated cost	... Rs. 4,513
Actual outlay	... „ 2,522

Digging up flooring and substituting fresh earth in urinals, European Infantry barracks.

Estimated cost	... Rs. 90
Actual outlay	... „ 62

Removing the enclosed space at south end of No. 28 European Infantry barrack.

Estimated cost	... Rs. 9
Actual outlay	... „ 2

Opening out 2 feet under the eaves along the back walls of the latrines in European Infantry and Royal Artillery lines to improve ventilation.

Estimated cost	... Rs. 196
Actual outlay	... „ 194

Making alterations to pipe arrangements for filtering water in carts at Dilwara well.

Estimated cost	... Rs. 69
Actual outlay	... „ 56

Renewing with fresh concrete and cement plaster the floors of wards in Nos. 29 and 30 Hospital.

Estimated cost	... Rs. 149
Actual outlay	... „ 174

Putting a corrugated iron covering to well No. 139 in Station Hospital enclosure.

Estimated cost	...	...	...	... Rs. 51
Actual outlay	...	...	...	... „ 51

Executing special repairs in consequence of cholera in No. 9 quarter company barrack and hospital No. 29.

Estimated cost	...	...	...	... Rs. 69
Actual outlay	...	...	...	... „ 80

Cleaning and whitewashing after fumigation, on account of cholera, barrack No. 7 in European Infantry lines.

Estimated cost	...	...	...	... Rs. 61
Actual outlay	...	...	...	... „ 61

NEEMUCH.

The Executive Engineer, Neemuch Division, writes as follows:—Nothing beyond doming over 12 wells; the doming over is, I think, a mistake; it prevents the wells being cleaned out, does not admit of deepening by the dredge, and renders blasting impossible; the doming over does not prevent the water from the persons of bathers falling back into the well.

Estimated cost	...	...	... Rs.	299 0 0
Actual cost	...	...	... „	279 6 7

MEHIDPUR.

The Executive Engineer, Neemuch Division, states that no sanitary work was executed at Mehidpur during 1883.

AGAR.

The Executive Engineer, Neemuch Division, states that no sanitary work was undertaken at Agur during the year 1883.

INDORE.

The Executive Engineer, Mhow Division, states that no special sanitary work has been carrried out during the year. Drains that had got filled up partially in the course of years in front of the European Infantry Barracks have been cleared.

MHOW.

The Executive Engineer, Mhow Division, reports that the following sanitary works were undertaken during the year under report:—

Excavated floor and removed soil out of cantonment limits and filled moorum mixed with 2 per cent. of fresh stonelime, scraped and whitewashed walls with 3 coats, also burnt jhamps and made new ones for the sick horse stable of 17th Lancers.

Estimated cost	...	...	...	... Rs. 1,097
Actual cost	...	...	...	... „ 699

Excavated floor, removed soil out of cantonment limit and filled new moorum mixed with 2 per cent. of fresh stonelime, scraped and whitewashed walls with 3 coats of stone lime in the stable No. 16 occupied by A. Troop, 17th Lancers.

Estimated cost	...	...	...	... Rs. 1,216
Actual cost	...	...	...	... „ 861

Dismantled 9 sepoys' blocks and 8 Native Officers' quarters in the Native Infantry lines.

Estimated cost	...	...	...	... Rs. 310
Actual cost	...	...	...	... „ 220

Dug up floor and carted the soil to outside of cantonment limits and re-filled with fresh moorum after mixing 2 per cent. fresh stonelime and scraped and whitewashed walls of Cavalry stable No. 18 after a case of Loodhiana Fever.

Estimated cost	...	...	...	... Rs. 2,093
Actual cost	...	...	...	... „ 1,528

Dug up floor of the sick horse lines of A/4 R. A. and scoured the pillars and woodwork of No. 18 stable.

Estimated cost	...	...	...	... Rs. 176
Actual cost	...	...	...	... „ 177

Made a cover to well No. 24-A/4 R. A.

Estimated cost	...	...	...	... Rs. 81
Actual cost	...	...	...	... „ 75

Constructed seats of No. $\frac{21}{2}$ latrine of Medical Subordinates' quarters in Station Hospital.

Estimated cost	...	...	...	... Rs. 10
Actual cost	...	...	...	... „ 10

Paved floor of latrines to No. 4 and 5 European Infantry barracks.

Estimated cost	...	...	...	... Rs. 163
Actual cost	...	...	...	... „ 163

Improved the drain on the south side of the bakery towards the kutcha road in order to allow the water to run off.

Estimated cost	...	...	...	... Rs. 98
Actual cost	...	...	...	... „ 48

Built a cesspool to hold about 150 gallons of waste water 5/1 R. A.

Estimated cost	...	...	...	... Rs. 18
Actual cost	...	...	...	... „ 9

Repaired the drain near No. 16 Staff Serjeant's block, E. I.

Estimated cost	...	...	...	... Rs. 40
Actual cost	...	...	...	... „ 41

Cleaned out 3 wells in cholera camp on Mhow and Simrole road.

Estimated cost	...	...	...	... Rs. 183
Actual cost	...	...	...	... „ 181

Deepened well No. 35 A. European Infantry Line.

Estimated cost	...	...	...	... Rs. 195
Actual cost	...	...	...	... „ 113

Erected a bamboo screen for urinal for Fort Guard.

Estimated cost	...	...	...	... Rs. 15
Actual cost	...	...	...	... „ 15

Extended the drain in rear of Nos. 9 and 10 married men's quarters, European Infantry.

Estimated cost	...	...	...	... Rs. 125
Actual cost	...	...	...	... „ 125

Built a cesspool to the bath-room of centre quarters of No. 4 Building A/4 R. A.

Estimated cost	...	...	...	... Rs. 7
Actual cost	...	...	...	... „ 5

Constructed a cesspool outside the bath-room in Commissariat Conductor's quarters.

Estimated cost	...	...	...	... Rs. 5
Actual cost	...	...	...	... „ 5

ASIRGARH.

The Executive Engineer, Hoshangabad Division, states that no sanitary work was executed at Asirgarh during the year 1883.

POONA DIVISION OF THE ARMY.

Stations.—MA'LEGAON, AHMEDNAGAR, SIRU'R, PURANDHAR, POONA, KIRKEE, KHANDALA AND SA'TA'RA.

MA'LEGAON.

Mr. Summers, C.E., Acting Executive Engineer, states that the following sanitary works were undertaken during the year 1883 :—

Cleaning a well near the Missionary school at Camp Málegaon.

Estimated cost	...	...	...	... Rs. 28 15 9
Actual cost	...	...	...	... „ 28 15 9

Constructing a single slab drain 12 "deep 12" wide in diameter near the meat market.

Estimated cost	...	...	...	... Rs. 201 0 0
Actual cost	...	...	...	... „ 199 5 0

AHMEDNAGAR.

Mr. Pottinger, C.E., Executive Engineer, Ahmednagar, reports that no sanitary work was executed during the year under report.

SIRU'R.

Mr. Howard, C.E., Executive Engineer, Poona District and Sholápur, states that no sanitary work was undertaken at Sirúr during the year under report.

PURANDHAR.

Mr. Howard, C.E., Executive Engineer, Poona District and Sholápur, reports that the following sanitary work was executed during the year 1883 :—

Closing the rear Verandah of the Serjeant Major's Bungalow at Purandhar.—In order to prevent the excessive dampness which prevails during the monsoon, the rear verandah of the Serjeant Major's quarters has been closed with a masonry wall, in which a door 6′ 6″ × 3′ and two windows 3′ × 4′ have been fitted, and the space so enclosed has been provided with a ceiling of dungry cloth.

Estimated cost	...	...	... Rs. 165 0 0
Actual cost	...	...	... „ 164 14 3

POONA.

Lieut St. Clair, R.E., Acting Executive Engineer, Poona and Kirkee, reports that the following sanitary works were undertaken during the year 1883 :—

Six hundred and six cast-iron pipes, each 2 feet in length and 2 inches in diameter, have been supplied, on payment, to the Officer Commanding Her Majesty's 9th Regiment Native Infantary at Poona, for insertion in the bath-room walls of the centre Native Infantry lines to carry out the waste water and prevent it soaking into the walls themselves.

Cost	...	...	...	... Rs. 265-2-0

Conversion of the Block of six Cells into Isolated Wards for the Station Hospital.—The building which has been converted into insolated wards now affords the following accommodation :—

1 ward 34′ × 13′, three of the old cells,

1 ward 22′ × 13′, two of the old cells,

1 ward 10′ × 13′, one of the old cells,

left intact for the treatment of a lunatic or any case requiring special isolation.

The building is surrounded by an open verandah 9½ feet wide. The four unused solitary cells and temporary guard-room and privies which lay adjacent to the building have been removed, and a block of permanent out-houses has been constructed contiguous to the south end of the isolated wards, consisting of a lavatory 6′ × 10′, a bath-room 6′ × 6′ and a latrine 6′ × 6′ with a verandah in front 6½′ wide. Three tilting washhand basins fitted in an iron table with water taps complete have been provided in the lavatory, and the bath-room has been furnished with shower-bath fittings. A detached urinary, 6′ × 6′ with water laid on, has also been provided.

Estimated cost ...	...	...	Rs. 2,098-0-0
Actual outlay ...	...	...	„ 2,097-3-0

Providing Shower Baths in the bath-rooms of three of the Lavatories subsidiary to European Infantry Barracks at Wanowri, New Set.—Brass roses, complete with stop-cocks for shower-baths, have been provided in the bath-rooms of these lavatories.

Estimated cost ...	...	...	... Rs. 51-0-0
Actual outlay ...	...	...	... „ 50-15-9

Stone and Lime Screen Wall to the Latrine in rear of the Arsenal.—To hide from view the Arsenal night-soil carts, a wall projecting 12 feet out, 6 feet in height and 18″ in thickness, built of stone and lime masonry with coping of broken glass, has been provided.

Estimated cost ...	...	...	... Rs. 40-0-0
Actual outlay ...	...	...	... „ 39-4-2

Lengthening the Screen Wall at the Arsenal Latrine.—The screen wall recently built to hide from view the night-soil carts in rear of the Arsenal being found of an insufficient length for the purpose, an additional wall projecting 15 feet out, 6 feet in height and 18″ in thickness has been built of stone and lime masonry; the coping is studded with broken glass.

Estimated cost ...	...	...	...Rs. 49- 0-0
Actual outlay ...	...	...	... „ 48-12-9

Preserving and watering Trees that have been planted in connection with sanitary improvements to Ghorepuri Barracks.—The trees that have been planted in connection with the sanitary improvements to the Barracks at Ghorepuri have been tended and watered. Fresh plants have been substituted for those that have died or been eaten by cattle.

Estimated cost...	...	...	...Rs. 1,666
Actual outlay ...	...	...	... „ 1,663

KIRKEE.

Lieutenant St. Clair, R.E., Acting Executive Engineer, Poona and Kirkee, states that the following sanitary works were undertaken during the year 1883 :—

Special repairs to the Sick Horse Stables in the Royal Artillery Lines at Kirkee.—The moorum floors, 1 foot in depth, have been excavated and removed from the horse boxes beyond camp limits, after which the floors have been filled in with fresh moorum and well consolidated, &c.

Estimated cost...	...	...	... Rs. 164 0
Actual cost ...	...	...	... „ 159 14

Providing Concrete Drains to certain portions in the Quadrangle of the Sick Horse Stables in the Royal Artillery Lines.—Two hundred and sixty-five running feet of concrete drains with cement skins have been provided in certain places in the quadrangle of the sick horse stables in the Royal Artillery lines, and 9" Doulton-ware pipes laid and iron gratings fixed.

Estimated cost	...	...	... Rs. 163 0 0
Actual cost...	...	...	... „ 161 15 4

Constructing two Latrines for the Royal Artillery Followers.—Two latrines of 4 seats each for the Royal Artillery followers have been constructed in accordance with the pattern of the New District Model Latrines.

Estimated cost	...	...	... Rs. 196 0 0
Actual cost...	...	...	... „ 191 9 2

Providing a Concrete Drain to carry off Waste Water from the Stand Pipe in the Bázár.—One hundred and sixty-seven running feet semi-circular concrete drain has been made and coated with a skin of Portland cement to carry off waste water from the stand-pipe in the bázár.

Estimated cost	...	...	... Rs. 132 0 0
Actual cost...	...	...	... „ 130 12 0

Constructing a Concrete Drain in the Sick Horse Stables.—One hundred running feet of semi-circular concrete drain, 1' 6" wide and 9" deep, has been constructed and covered with a skin of pure Portland cement.

Estimated cost	...	...	... Rs. 53
Actual cost	...	...	... „ 49

KHANDÁLA.

Mr. Howard, C.E., Executive Engineer, Poona District and Sholápur, reports that the following sanitary work was executed during the year 1883 :—

Making Boundary Pillars for Night-soil Depôt at Khandála.—A plot of ground used as a night-soil depôt has been marked out by boundary pillars.

Estimated amount ...	...	...	... Rs. 25
Actual amount ...	...	...	... „ 25

SÁTÁRA.

Mr. C. Brereton, C.E., Executive Engineer, Sátára, reports that the following sanitary works were carried out during the year 1883 :—

Constructing a sentry box at the unprotected corner of the Magazine.

Estimated cost	...	...	... Rs. 70
Actual cost during 1883	...	...	... „ 64
Total cost	...	...	... „ 68

Improvements to Lightning Conductors of the Barracks and Powder Magazine.—Such improvements as were considered necessary have been carried out in communication with the Telegraph Department.

Estimated amount	...	...	... Rs. 892
Actual amount ...	...	...	... „ 882

Alterations to the two end Rooms of Patcherry No. 31 occupied by European Infantry.—With a view to afford more accommodation, these alterations have been executed by removing partition walls, &c.

Estimated cost	... Rs. 64
Actual cost	... „ 64

Removing Steps leading from lower to the upper entrance of the Hill Fort.—The pathway leading from the lower to the upper entrance of the fort was originally paved with large irregularly shaped boulders. These have been removed and replaced by a good concrete ramp.

Estimated cost	... Rs. 437
Actual cost	... „ 428

Providing an earthen ramp to the new slaughter shed.

Estimated cost	... Rs. 15
Actual cost	... „ 15

BELGAUM DISTRICT.

Stations.—KOLHA'PUR, BELGAUM AND DHA'RWA'R.

KOLHÁPUR.

Lt.-Colonel Seton, R.E., Executive Engineer, Belgaum and Kolhápur, states that no sanitary work was undertaken during the year 1883.

BELGAUM.

Lt.-Colonel Seton, R.E., Executive Engineer, Belgaum, reports that the following sanitary work was undertaken during 1883:—

Providing Iron Receptacles to the Foul Water Cisterns of Latrines, Left Flank Native Infantry Lines.—Four iron receptacles, 2½' diameter and 2' high fitted with strong iron rings and dammered, have been provided. The wood-work of four frames and their coverings have been repaired, four drip stones have been removed and four iron pipes substituted.

Estimated cost	... Rs. 44
Actual outlay	... „ 43

DHA'RWA'R.

Lt.-Colonel Mander, R.E., Executive Engineer, Dhárwár, states that no sanitary works were undertaken during the year under report.

SIND DISTRICT.

Stations.—KARA'CHI, HYDERABAD AND JACOBABAD.

KARA'CHI.

Colonel Gambier, R.E., Executive Engineer, Lower and Central Sind, states that the following sanitary works were undertaken during the year 1883:—

Kutcha Teak Plank Flooring to the Lascars' Lines at Manora.—This was supplied because the floors were very damp.

Estimated cost	... Rs. 309
Actual cost	... „ 291

Supplying water to the Government Steam Bakery.

Estimated cost	... Rs. 865
Actual cost	... „ 616

Supplying water to the Commissariat godown at Keamaree.

Estimated cost	... Rs. 451
Actual cost	... „ 449

HYDERABAD.

Colonel Gambier, R.E., Executive Engineer, Lower and Central Sind, reports that the following sanitary work was undertaken during the year 1883:—

Improving Drainage of European Barracks.—This work consists of a series of masonry drains to carry off waste water from lavatories, cook-rooms and plunge-bath, &c. In progress.

Estimated cost	...	...	...	Rs. 6,550-0-0
Actual cost ...	...	...	...	„ 318-0-9

JACOBABAD.

Colonel Gambier, R.E., Executive Engineer, Lower and Central Sind, reports that the following sanitary work was executed during the year 1883:—

Demolishing old and constructing new Native Infantry Lines.—The old lines have been demolished. The outside dimensions of each barrack for a half company are 156 feet in length by 44 feet in width. Five double blocks (for 5 companies) have been completed, and the sixth is in progress. The plinths are 2' 5" high above the natural ground surface, and the walls are 14' high up to the top of the roof beams. The pendalls are well ventilated, having 12 glazed ventilators in each of the side main walls and two in each of the end walls, each 3'×2', and opposite to these a similar number of round 2' diameter holes in the verandah walls near the roof, screened by iron bars. Besides which there are ventilating holes and shafts in the outer and central partition walls, giving in all total area of ventilators of about 1-16th of that of the floor's space. The floors have 6" clean sand and 6" of earth free from salt, well rammed and mud-plastered. The walls are mud-plastered but not whitewashed inside. One hundred pegs and arm racks supplied for each company.

Estimated cost	...	...	...	Rs. 1,57,662
Actual cost ...	...	...	...	„ 95,885

ADEN BRIGADE.

ADEN.

Major Twemlow, R.E., Executive Engineer, Aden, states that the following sanitary works were carried out during the year 1883:—

Constructing a Dust-bin for Officers' Quarters No. 52 at the Isthmus Position.—A masonry dust-bin 5'×5' internal measurement and 4' high constructed on a foundation of rubble and lime masonry of coursed brick and lime chunam pointed.

Estimated cost	...	...	...	Rs. 36
Actual cost	...	...	...	„ 31

Constructing temporary Ward for 4 Native Patients at Steamer Point.—A ward 18'×13½' with a verandah 6' wide on three sides and bath-room and latrine at 2 corners each 6'×6'. Masonry plinth to 1' above ground with Zanzibar posts built in to support roof of Zanzibar plates and cut rafters, covering of 5 layers of jowlies. Walls, Aden trellis and mats. Doors, Benteak frames and mats.

Estimated cost	...	...	...	Rs. 536
Actual cost	...	...	...	„ 510

Levelling ground between Messrs. Cowasji's Farm and Cemetery at Steamer Point.—24,600 cubic feet of filling in executed.

Estimated cost	...	...	...	Rs. 258
Actual cost	...	...	...	„ 258

QUETTA DISTRICT.

Stations.—Sibi, Sharigh, Gundakinduff, Dakki and Bolan.

No sanitary works were undertaken at Sibi, Sharigh, Gundakinduff and Dakki.

BOLAN PASS.

The Executive Engineer, Bolan Division, states that the following work was executed during the year 1883:—

Completing the steining of Darwaza Well.—The well is now completed and contains a depth of 7' of water, the diameter of the well being 7' also.

It is just sufficient for a battalion for one day with followers, but the flow of water is not rapid.

Estimated cost	...	...	...	Rs. 2,426
Actual cost	...	...	...	„ 2810

SECTION V.

SANITARY WORKS—CIVIL.

1. The original reports received from the several municipalities have been abstracted and the results are here given.

2. The total annual income of the 163 municipalities during the year 1882-83 is Rs. 27,10,952 and the sum expended on conservancy by them is Rs. 11,48,903.

3. The details of the sanitary condition of the municipal towns are given below by Revenue Divisions:—

NORTHERN DIVISION.

District.		Name of Municipality.	Population.	Annual Income.	Expenditure on Conservancy.
				Rs.	Rs.
Ahmedabad	1.	Ahmedabad City	119,367	2,54,979	39,396
	2.	Dholka Town	17,736	16,510	1,919
	3.	Dhundhuka Town	10,044	7,697	422
	4.	Viramgám "	14,990	13,351	13,470
	5.	Parántij "	9,358	4,038	925
	6.	Modasa "	7,091	8,217	3,041
	7.	Gogha "	7,060	2,485	136
		Total	190,904	2,96,849	79,393
Kaira.	8.	Kaira Town	12,640	8,369	2,537
	9.	Mehmadabad Town	8,178	5,803	451
	10.	Nadiad "	28,304	20,547	4,655
	11.	Kapadvanj "	14,447	7,960	1,302
	12.	Dákor "	7,771	11,940	2,059
		Total	71,340	54,619	13,415
Panch Mahals.	13.	Godhra Town	13,342	5,649	806
	14.	Dohad "	12,394	3,832	1,291
		Total	25,736	10,861	2,097
Broach.	15.	Broach City	37,261	79,739	9,071
	16.	Ankleswar Town	9,835	11,112	1,307
	17.	Jambusar "	11,079	6,648	1,134
		Total	58,205	97,499	11,402
Surat.	18.	Surat City	107,134	2,50,710	1,05,393
	19.	Kamler Town	15,476	15,992	1,763
	20.	Bulsár "	15,229	13,393	2,763
	21.	Mándvi "	6,141	4,606	550
		Total	154,542	2,84,501	1,06,756
Thána.	22.	Thána Town	14,456	15,351	6,931
	23.	Kalyán "	12,009	10,311	4,839
	24.	Bhiwandi "	15,257	11,187	2,659
	25.	Panvel "	10,251	9,969	1,851
	26.	Mahim "	7,122	2,555	500
	27.	Bassein "	10,257	6,865	2,281
	28.	Bándra "	14,087	27,939	6,716
	29.	Kurla "	9,715	4,988	2,359
	30.	Uran "	10,149	6,233	2,649
		Total	103,304	94,127	30,373
Kolába.	31.	Alibág "	6,376	7,109	1,453
	32.	Pen "	6,062	6,311	4,454
	33.	Roha Ashtami "	4,594	4,606	457
	34.	Mahád "	6,804	6,863	3,671
		Total	26,156	24,456	9,995
		Grand Total	619,908	8,52,190	2,46,219

Water-supply.—The existing arrangements in the above municipal towns are the same as those of the previous years. The supply is mainly from rivers, tanks and wells of sufficient quantity but too often of doubtful quality. The public wells are periodically cleaned by the different municipalities. During the hot season temporary wells are sunk in river beds if they run dry. At Ahmedabad about 133,000 gallons of water per day is raised by steam pumps from the river Sábarmati. The spot selected for the water-works is at the lowest point of the town and after the river has been fouled by washing clothes, &c., &c. The storm water of the town which carries away the urine and ablution water during the rains is discharged above the point from which the drinking water is drawn. The water after being raised passes through a filtering tank; but this cannot remove all the impurities in it as the area of the filtering bed is very inadequate for proper and effective filtration. The water is distributed partly by earthen and partly by iron pipes. The supply is quite inadequate for the requirements of the city; but the subject of improving the water-supply is under the consideration of the Irrigation Department and also of the Municipal Commissioners. At Gogha besides wells, the water is brought from the Sonana tank, about a mile from the town, by a closed channel to a masonry reservoir situated in the centre of the town; the water from the tank is filtered before being conveyed to the reservoir. At Broach City the supply is insufficient. Some of the inhabitants collect the rain water in small cisterns or reservoirs built for the purpose below their houses upon which they depend solely for their drinking water-supply, but the principal source is from wells and the river. At Surat also the supply is insufficient. The richer class store in underground tanks

rain water sufficient to last from one monsoon to the other, but the majority draw their water from the river Tápti and wells. A fresh supply of pure water to the city is under consideration. Thána is supplied with pure water from the Pokharn reservoir. At Kurla the supply is indifferent in quality and insufficient, but a new scheme is under consideration. At Bhiwndi the water is brought from a fine artificial lake about a mile from the town by pipes into ten cisterns which are used as dipping wells and also to four stand-pipes. At Kalyán there is great want of good water; the municipality have partially cleaned the Lendi tank in the hopes of improving the supply. At Bassein and Uran peons are employed to watch the tanks that the water may not be polluted. At Alibág the water is brought to the town by means of earthen pipes from a tank about 1¾ miles from the town. At Pen the water is brought by pipes from a tank a mile from the town to three reservoirs to the south of the town, from which the inhabitants draw their water. Mahád is supplied from wells and tanks; but for eight months in the year an establishment is entertained to remove the green substance always seen on the surface of and mixed with the water of the tank.

"Some people have their cattle sheds built on the banks of the Chandhar tank and have erected 'maches' in the water itself to stack fodder on. Cowdung and urine of the animals naturally go into, by saturation, &c., and spoil the water. The Municipal Commissioners say that superior authorities have tried in vain many a time to get the nuisance removed, the owners of these sheds having proved their long usage. Something, however, must be done to get these sheds and 'maches' removed."

Drainage.—There is no regular system of drainage beyond open masonry side drains to the principal roads or mere earth trenches to carry off rain water. At Kaira five of the main streets in the town are provided with closed drains. At Dákor the drains in the principal streets have been made during the year water-tight and on a proper incline to allow the sullage to run off. The municipality of Surat has been devising measures for the thorough drainage of the city by means of underground drains, but these cannot be carried out until a sufficient supply of water for flushing them is obtained.

Cesspools.—There are no municipal cesspools, but almost all private houses have them, and the owners see to their cleanliness; no new ones are allowed to be built. At Ahmedabad every house in the city has a cesspit called "khálcooa" into which urine, privy water and all the dirty water of the house is discharged. These "khálcooas" are from 3 to 4 feet in diameter dug in the ground under or at the side of the houses for a depth of from 15 to 25 feet; on the top they are arched over and built up from 2 to 5 feet below the level of the surface; the bottom and sides of these pits are not cemented. At Viramgám City there are two municipal cesspools. At Ránder there are 770 cesspools, and these are cleaned periodically by the municipality. The cesspools at Thána are cleaned by the municipality. At Mahád there is a "nála" in the middle of the town. "It is dry in the fair season and is washed off in the rains. It sometimes becomes swampy in October or when the rain holds off in the middle of the season. Every possible care and stringent measures are taken to prevent people from using it for throwing in rubbish."

Scavengering.—Sweepers are entertained by the several municipalities to keep the town and streets clean. At Gogha and Anklesvar the scavengering is done by contract. The street sweepings are carted to depôts out of the town and sold by auction. At Ahmedabad the sweepings are taken to the two night-soil depôts where they are burnt and the ashes used for making poudrette, from the sale of which Rs. 4,300 were realized. It is estimated that about 20,701 tons of sweepings, 14,300 tons of night-soil and 1,041,800 gallons of urine were removed from the city during the year. At Nadiád the sweepings were mixed with night-soil and sold as manure for Rs. 370. The street sweepings at Broach were utilized for making poudrette. At Surat part of the sweepings was burnt to ashes and poudrette was manufactured which sold for Rs. 1,152 and part of the sweepings sold for Rs. 1,607.

Latrines.—The majority of the municipal towns have public latrines and they are looked after by municipal sweepers. The following towns have no latrines:—Godhra, Anklesvar, Bándra, Bassein, Máhim and Roha Ashtami. There are four public latrines at Mahád which are not allowed to be used

because there are no Halálcores. The surrounding fields and the banks of the adjoining creeks are made use of. A Halálcore cess should be imposed and a permanent staff of sweepers should be entertained. At Ahmedabad the night-soil of the jail population was buried for eight or nine months in the jail garden, situated within the city, which after some months is used as manure: this practice has been stopped by order of Government. At Dhandhuka there are no latrines, but there are four enclosures situated in different quarters of the town for females. Paránt'j town has two latrines, but they have not as yet been brought into use. There is an enclosure to the east of the town which is used as a latrine for women. At Dákor eight fields and plots near each gate are set apart for natural purposes. Dohad has no public latrines, but enclosures with trenches have been established at two different places outside the town. Broach City has no regular built latrines, but open enclosures of land are allotted to the public and are cleaned out regularly. At Jambusar 14 new latrines were built. In the following towns private privies are also cleaned by municipal sweepers:—Ahmedabad, Surat, Ránder, Bulsár, Thána, Kalyán, Bassein, Uran, Alíbág and Pen.

Urinals.—There are urinals in the municipal towns of the Ahmedabad and Kaira districts and at Surat City, Jambusar and Anklesvar towns; they are washed out daily and kept clean. At Nadiád and Dákor the urine runs from the urinals through pipes into tubs, from whence it is carted off in night-soil carts. During the Dákor fair temporary urinals, consisting of kerosine oil tins with one side cut out, were put up at every 300 yards.

Markets.—The majority of the municipal towns have no regular built markets, but weekly market sales are held on open plots of ground. During the year two markets were constructed at Ahmedabad—a grain and vegetable market. There are grain and vegetable market buildings at Dholka, Nadiád, in all the municipal towns of Surat and Thána districts and at Alíbág and Mahád.

Burial Grounds and Cremation Ghâts.—There are several of both outside each municipal town. Cremation ghâts are generally on the banks of rivers.

New Works.—At Ahmedabad Rs. 424 were expended on construction and repairs to public privies and urinaries, Rs. 4,226 on new and old drains and Rs. 1,75,744 on new roads and repairs to old ones, and Rs. 12 on repairs to a well. At Dholka a new market, Rs. 3,542. At Viramgám the public latrine was extended and a shed for infectious cases was built. At Paránt'j two new latrines were built at a cost of Rs. 426. At Modása Rs. 715 were expended on roads and gutters. At Nadiád Rs. 420 on a new slaughter-house, Rs. 221 on a new latrine and on slabs for another latrine, and Rs. 38 on night-soil carts. At Dákor Rs. 1,320 on conservancy carts, Rs. 257 on new urinals and Rs. 12,000 on an embankment for a tank. At Kaira the town wall was rebuilt at a cost of Rs. 869, a wooden bridge at a cost of Rs. 141, and Rs. 116 were expended on a new latrine. At Mehmadabad a new urinal was built. At Dohad a new road was made for Rs. 384. At Broach for improving slopes Rs. 8,150 were expended and on roads and gutters Rs. 639. At Surat Rs. 18,566 were expended on roads, Rs. 9,324 for extending the public park, Rs. 2,109 on new latrines, Rs. 2,182 on a shed and room to the civil hospital and dispensary, Rs. 457 on a new well, Rs. 3,460 on certain repairs at the Missou House and Rs. 245 on a cattle-pound. At Mándvi a new well and a masonry tank for storage of water were constructed. At Ránder a culvert. At Uran the public latrine was completed at a cost of Rs. 230. At Thána markets were completed during the year. At Bándra the town market was extended and a compound wall was built to the Khar market. About 6,000 feet of new road was constructed and about 200 feet of masonry drains built. At Bhiwndi four new dust-bins were provided. At Kalyán Rs. 1,500 were expended for cleaning the Lendi tank, and a portion of it adjoining the road has been converted into a public garden. At Mahád a privy room to the dispensary for Rs. 21 and two short roads for Rs. 65. At Alíbág a market and privy were constructed.

CENTRAL DIVISION.

District.	Name of Municipality.	Population.	Annual Income.	Expenditure on Conservancy.
			Rs.	Rs.
Ahmednagar.	1. Ahmednagar ..	32,903	56,716	12,147
	2. Bhingár ..	5,106	4,327	997
	3. Sangamner ..	9,796	9,980	1,921
	Total ..	46,805	66,023	14,065
Khándesh.	4. Jalgaon ..	9,918	29,664	4,264
	5. Varangaon ..	4,111	1,929	468
	6. Yáwalod ..	11,501	4,202	1,494
	7. Pársola ..	15,654	5,774	942
	8. Dharangaon ..	13,381	4,319	1,419
	9. Amalner ..	7,627	2,602	430
	10. Bhadgaon ..	6,577	1,876	641
	11. Mhaiji ..	7,000	1,409	262
	12. Sangoli ..	4,397	1,320	320
	13. Prakásha ..	5,611	1,597	700
	14. Nandurbár ..	6,341	4,271	1,454
	15. Taloda ..	5,003	4,452	402
	16. Dhulia ..	28,449	29,994	6,574
	17. Sindkheda ..	4,291	1,746	347
	18. Betiwad ..	3,262	1,108	240
	19. Shirpur ..	7,613	3,551	1,138
	20. Chopda ..	10,922	3,710	1,505
	21. Shahada ..	5,441	2,987	1,005
	22. Bhusával ..	5,744	6,744	962
	Total ..	150,533	1,09,919	24,945
Násik.	23. Násik ..	24,108	42,548	22,704
	24. Trimbak ..	3,559	3,455	369
	25. Sinnar ..	7,960	3,759	372
	26. Igatpuri ..	6,206	3,177	1,297
	27. Málegaon ..	19,032	10,901	4,399
	28. Yeola ..	17,052	17,400	6,304
	Total ..	78,513	87,239	37,445
Poona.	29. Poona City	99,628	2,33,041	62,497
	30. Jejúri	4,946	1,811	362
	31. Shirúnadi	5,372	5,326	1,196
	32. Sásvad	5,644	3,659	513
	33. Jejúri	3,941	3,026	473
	34. Ghodnadi or Sirúr ..	4,892	6,779	585
	35. Talegaon Dhamdhere ..	2,652	701	135
	36. Junnar	10,873	5,196	893
	37. Talegaon Dábhádi ..	4,900	2,457	149
	38. Khed	2,615	448	215
	39. Alandi	1,734	6,076	1,160
	40. Lonávla	3,564	3,001	302
	Total ..	156,455	2,69,970	69,971
Sátára.	41. Karád	10,778	10,443	712
	42. Vita	4,677	928	72
	43. Sátára	23,901	56,326	6,624
	44. Rahimatpur ..	6,092	7,407	647
	45. Wái	11,676	6,804	2,599
	46. Malcolmpeth ..	2,344	13,518	609
	47. Pálanpur ..	9,949	1,223	264
	48. Tásgaon	10,036	4,997	575
	49. Ashta	9,548	1,579	260
	50. Panorali	6,997	1,304	130
	51. Mánsi	2,079	439	69
	52. Mhaswad	5,981	2,262	110
	53. Shingnápur ..	1,979	4,610	671
	Total ..	106,937	1,60,947	13,710
Sholápur.	54. Sholápur City ..	59,891	1,19,874	24,913
	55. Barsi	30,136	41,494	4,746
	56. Karmála	5,071	8,805	676
	57. Pandharpur	16,949	26,793	27,604
	58. Sángola	4,736	1,344	401
	Total ..	116,783	2,48,470	57,324
	Grand Total ..	699,526	8,77,563	5,16,500

Water-supply.—No change from that of last year. The supply is obtained from rivers, tanks and wells; temporary wells are dug in the river beds when they run dry. At Ahmednagar short feeder lines to two of the aqueducts were undertaken to prevent scarcity of water; the waters of some of the aqueducts were analysed, and the water of three, viz., Bhingár, Nagabai and Sháhápur aqueducts, was pronounced to be good and of Wadgaon aqueduct to be fair. Bhingár town has a perennial supply of excellent water, which is brought to the town by an aqueduct from springs in the neighbouring hills. Jalgaon Town is supplied with water by means of iron pipes from the Melvun tank. Poona city gets its supply from four aqueducts and the Mutha canal, which supply about 1,500,000 gallons per day, or about 15 gallons per head; there are 84 public cisterns and 73 stand-pipes in the city. At Jejuri the water is brought from Holker's tank to the west of the town, and from this place it is taken into the town and distributed to four cisterns. At Junnar the water is brought by earthen pipes from springs to 19 cisterns in the town. At Sirúr for 4 or 5 months in the year peons are employed to see that the river water is not polluted. At Sásvad from the river "Kara": in the hot weather a temporary dam is thrown annually across the river in which two openings are made. The water from one opening is used by the people for drinking purposes and from the other for washing and watering cattle: for four months of the year the whole of the town obtains its water-supply from this river. At Lonávla from the G. I. P. Railway Company's tank Bustia, about 2¼ miles from the town; six taps are open at different places and the quantity of water consumed is charged by the Company at the rate of one anna for 1,000 gallons. The water is excellent for drinking, for which only it is used. At Násik the river Godávari is the chief source of water-supply and from wells and also from a fountain, called "Howd," supplied with water from the river Nasardi by means of an underground aqueduct; the water is conveyed from a point in the river about two miles west of the town. Peons for eight months every year an entertained to prevent the pollution of the water that is reserved for drinking purposes. Igatpuri mainly depends on five stand-pipes consisting of 18 cocks; the water is allowed gratis in these pipes by the G. I. P. Railway Company from their tank. There are also 12 built wells. Rahimatpur gets its supply from wells and from two nálás, one to the north and the other to the south of the town; in these small wells are built from which drinking water is obtained. At Sátára from an

aqueduct from the Yuwateshwar hill and from two large masonry tanks or reservoirs from Mharduri and Mangalwár Peith in the town; but as the supply was found to be deficient during the hot season, a further supply is proposed to be got from Kas by throwing a dam across the Oormori river and forming a lake there and by conveying the water into the Yuwateshwar aqueduct by an open channel. The water is distributed in 156 cisterns constructed in different parts of the town. Karád gets its supply from the Koyna and Krishna rivers, which flow on the western and northern sides of the town. The northern side of the town is supplied with water brought from the Krishna canal by means of pipes: a few cisterns have been made for the use of the public. Málcolmpeith gets its supply from the Yenna lake, two tanks and wells; there is a plentiful supply of water; an iron pipe, 9 feet in length, has been fixed at right angles to the end of the pipe by which alone water was formerly drawn from the Elphinstone tank. One stop-cock and leathern hose have been applied to each end of this pipe to enable two Bhisties to fill their mussucks at the same time. The well between Falkland and Carnac points, from which part of the water required for Government-house is obtained, was covered with iron wire in order to prevent Bhisties from defiling the water by dipping their dhols into it. A stone wall has also been built along each side of the ravine through which the water percolates into the well with the view of preventing jungle cattle and Bhistees' bullocks from defiling the water at its source. The water is now drawn from a two-inch iron pipe which has been fixed at the lower side of the well and is obtained in a state of perfect purity. The two tanks and the public wells and springs in the station have been thoroughly cleaned out. At Sholápur the supply is obtained from the Ekruk tank, the water of which is pure. The water of the Ekruk perennial canal is conveyed into a settling tank constructed of coarse stone masonry at a distance of about ½ a mile to the north of the city, from which it is pumped by steam pumps through a 10-inch cast-iron main into the high and low level service reservoirs to the south of the city. The first is situated about 85 feet and the second about 60 feet higher than the ground level of the settling tank. From these service reservoirs the water is distributed by gravitation into the city and Sadar Bázár through cast-iron pipes and connected with 59 stand-posts. During the year 1", 2", 3" and 6" wrought and cast-iron pipes were laid down and 10 stand-posts were erected. Water is also obtained from the Sidheshwar tank and wells. Three peons are constantly employed to prevent the water from being fouled. At Pandharpur the water is brought into the city by pipes from a tank; it also gets its supply from the Bhima river.

Drainage.—There are open masonry drains in the principal streets and mere earth trenches to roads in all the municipal towns to carry off the rain water. At Ahmednagar during the year branch drains were constructed and connected to the two existing drains; the proper drainage of the city is under consideration. At Poona city there has been no change. The sewerage scheme has not advanced beyond the region of discussion: a few new U-shaped drains were built during the year. At Násik five new drains were constructed during the year—three 75 feet long, one 200 feet and one 375 feet—and connected with the existing drains, and 12 drains were cleaned. At Igatpuri there are open drains to the roads. At Sholápur a branch sewer of stone masonry, 330 feet long, was constructed during the year and a waste water open drain, 500 feet long, to carry off the waste water of the two stand-posts into an underground sewer. At Bársi in the main streets there are covered side drains of masonry; in the other roads the refuse water runs through small drains into the main drain. At Jalgaon there are no separate gutters for carrying off the rain water; the same gutters that carry the dirty water of the houses drain away the rain water.

Cesspools.—There are no municipal cesspools, but private houses in some of the municipal towns have them. At Ahmednagar the municipality allow cesspits to the houses, into which the bath, kitchen water, &c., runs, the water from which is daily thrown over the ground to evaporate. At Sholápur there are about 1,800 on the sides of the roads and lanes; the foul water from them is removed every day by the municipality in 12 cylindrical carts to a distance of half a mile. At Jalgaon the gutters are cleaned by the street sweepers. The cesspools at Sindkheda and Shirpur are cleaned by the municipality.

Scavengering.—Sweepers are entertained by the several municipalities of this division to keep the town and streets clean. Street sweepings are removed to depôts some distance from the towns and are either sold or buried in pits. At Ahmednagar part of the sweepings was sold and part was burnt, the ashes being utilized for the manufacture of poudrette. At Poona Rs. 33,422 were realized from the sale of poudrette. At Sangamner the street sweepings are sold annually to a contractor who removes them at his own cost. Poudrette was manufactured at Bhingár, Dharangaon, Násik, Sátára, Sholápur, Pandharpur and Sirúr.

Latrines.—The majority of the municipal towns have public latrines and sweepers are entertained to keep them clean. Private privies at most of the towns are also cleaned by municipal sweepers. The public latrines at Sásvad, Tálegaon Dhamdhera, Indápur and Vita are not made use of. The night-soil is removed to a distance and buried. At Shingnápur there are no latrines, but there are trenches at different parts of the town, and they are made use of during those days on which the fair is held. There are no latrines at Lonávla, Khed, Rahimatpur, Islámpur, Shingnápur, Máyni, Pusesávli, Tásgaon and Karmála.

Urinals.—The only towns that have any urinals are Ahmednagar, Dhulia, Násik, Poona, Sholápur and Pandharpur, which are cleaned every day by the municipal sweepers.

Markets.—Only few of the municipal towns have regular market buildings. Weekly sales are held on open plots of ground with raised sitting places (otas). During the year a mutton market was constructed at Jalgaon. There are market buildings at Ahmednagar, Bhingár, Poona City, Sásvad, Násik, Igatpuri, Wái, Sátára, Pusesávli, Malcolmpeit, Sholápur, Bársi and Pandharpur. There are sheds for the sale of mutton and fish at Dharangaon, Sirúr and Yeola.

Burial Grounds and Cremation Ghâts. There are a few of both outside the municipal towns.

New Works.—At Ahmednagar Rs. 3,779 were expended on water-works, on markets Rs. 4,575, on drains and gutters Rs. 2,583, on latrines Rs. 564, on urinals Rs. 7, on dust-bins Rs. 196, on public garden Rs. 39, on new plant Rs. 525 and Rs. 625 for extending the municipal bullock shed. At Bhingár Rs. 1,000 were expended for constructing a tank. At Amalner Rs. 48 on new dust-bins and Rs. 53 on temporary latrines. At Erandol Rs. 547 on new drains and Rs. 27 on temporary latrines. At Máheji Rs. 32 on temporary latrines. At Dhulia new gutters, a latrine and a shed for the municipal bullocks. At Sindkheda a new road. At Chopda a new road with gutters on both sides. At Betávad two masonry drains. At Shirpur two new roads. At Jalgaon a mutton market, water channels and latrines. At Varangaon two dust-bins and a latrine. At Bhusával gutters, a latrine and dust-bins were built during the year. At Násik five new drains and dust-bins. At Málegaon a new latrine at a cost of Rs. 461 and Rs. 987 on new drains. At Yeola Rs. 1,148 on six new latrines, Rs. 483 on six new otas and Rs. 10 on refuse pits. At Sinnar Rs. 50 on dust-bins, Rs. 200 on two new roads, Rs. 384 on two latrines, and Rs. 80 on a night-soil cart. At Jejuri a filter was built for the filtration of the water running from Holkar's tank into the principal cistern. At Bárámati a road was constructed for Rs. 291. At Sirúr a fish and a mutton market and four latrines. At Sásvad two latrines for Rs. 200. At Lonávla a bázár road was reconstructed. At Khed Rs. 336 were expended on roads. At Alandi Rs. 916 on roads and the following were constructed: a thatched building for cholera cases and a receptacle outside the town for the deposit of sweepings. At Poona Rs. 7,362 on roads, Rs. 2,089 on latrines and urinals, Rs. 7,965 on markets, Rs. 7,994 on water-works, Rs. 1,316 on the night-soil depôt, Rs. 3,476 on U-shaped drains and Rs. 5,269 on cremation ghâts. At Ashta two new latrines. At Mhasvad a well. At Karmála a new road. At Pandharpur 25 dharmshálas. At Bársi a road, three latrines, three gutters and two wells. At Sholápur Rs. 5,819 were expended for erecting water stand-posts, Rs. 428 on drains, Rs. 1,202 on dust-bins and Rs. 468 on two latrines.

Southern Division.

Districts.	Name of Municipality.	Population.	Annual Income.	Expenditure on Conservancy.
			Rs.	Rs.
Kánara.	1. Kárwár	13,761	9,652	9,727
	2. Kumta	10,629	10,970	370
	3. Sirsi	5,633	10,034	5,102
	4. Haliyál	5,527	5,959	1,146
	5. Gokarn	4,207	1,797	269
	6. Ulri, temporary ..	411	778	4
	Total ..	39,968	38,270	16,658
Belgaum.	7. Belgaum	23,115	36,702	21,003
	8. Yamkanmardi ..	4,498	1,596	309
	9. Nipáni	9,777	10,527	1,429
	10. Saundatti	7,132	1,296	819
	11. Gokák	10,307	7,833	4,966
	12. Yellama Hill, temporary	..	4,715	232
	13. Athni	11,186	12,529	5,376
	Total ..	66,009	75,198	35,072
Kaládgi.	14. Kaládgi	7,024	2,542	810
	15. Bágalkot	12,850	11,066	4,483
	16. Ilkal	9,574	5,744	2,283
	17. Bijápur	11,424	4,549	1,267
	Total ..	40,872	23,901	8,843
Ratnágiri.	18. Vengurla	8,347	12,645	2,410
	19. Rájápur	7,445	7,682	4,144
	20. Ratnágiri	12,638	6,239	2,140
	21. Chiplun	12,065	15,305	7,683
	22. Dápoli	2,462	655	247
	Total ..	43,538	41,896	17,664
Dhárwár.	23. Dhárwár	26,520	23,104	4,986
	24. Hubli	36,477	32,513	12,893
	25. Gadag-Betgeri ..	17,001	33,407	1,838
	26. Navalgund	7,830	4,622	786
	27. Nargund	7,874	1,789	1,329
	28. Hángal	5,272	909	325
	29. Háveri	5,652	1,465	698
	30. Byádgi	4,116	4,887	790
	31. Ránebennur	10,302	4,281	1,150
	32. Guddguddapur, temporary	615	743	23
	Total ..	1[illegible],739	91,912	24,845
	Grand Total ..	312,126	2,71,087	1,03,022

Water-supply.—The existing arrangements in the above municipal towns are the same as those of last year. The water-supply is obtained from rivers, tanks and wells. At Chiplun the new water-works were completed during the year. The water is brought from the Shiw river, a distance of about four miles. Stand-pipes have been erected in various places and pipes are being laid on to houses. At Dhárwár a new well was sunk on the bank of the Motu tank.

Drainage.—To carry off rain water there are open side masonry drains to the principal streets and mere earth trenches to other roads. At Gokarn a new drain, called "Hanahalli Mooree", was constructed during the year. At Sirsi five new culverts were built.

Cesspools.—There are no municipal ones, but in some of the municipal towns private houses have them.

Scavengering.—Sweepers are entertained by the various municipalities to keep the towns and streets clean. The street sweepings of Kánara, Bágalkot and Kumta were utilized for reclaiming low-lying ground. At Sirsi and Ratnágiri the street sweepings were taken to a distance and burnt. At Vengurla the sweepings were used for reclaiming a salt marsh. At the other towns the sweepings were taken to depôts at a distance from the towns and sold.

Latrines.—No change from that of last year. Only a few of the municipal towns have public latrines, the inhabitants resorting to fields on the outskrits of the towns for natural purposes. At Gokarn 16 temporary public latrines were constructed during the fair. At Sirsi and Saundatti there are trench latrines, but people resort to fields. There are some private privies, which are simply deep cesspits; they are never cleaned; when full they are closed in with earth and new ones dug. There are a few pit privies at Bágalkot. At Belgaum the night-soil collected from public latrines as well as from private privies is daily removed by nine cylindrical carts and conveyed to a place about three miles from the town, where it is converted into poudrette. At Gokák the night-soil is buried in pits.

Urinals.—There are a few at Dhárwár and Hubli.

Markets.—A few of the towns have markets; they are washed out and kept clean. Where there are no regular built markets, sales are held on open plots of ground.

Burial Grounds and Cremation Ghâts.—There are a few of each outside the municipal towns.

New Works.—At Kárwár three dust-bin carts were purchased for Rs. 540 and two new latrines were constructed at a cost of Rs. 1,153. At Sirsi two tiled-roofs were erected over two wells at a cost of Rs. 196 and 5 new culverts for Rs. 62. At Bijápur latrines were built at a cost of Rs. 1,218. At Belgaum the following were constructed:—Four new roads, a market and paving the floor of another market, a well, a dharmshála, a block of latrines and a large underground drain. At Saundatti a new well, two roads and drains to a road. At Gokák two masonry receptacles for receiving the dyer's refuse at a cost of Rs. 228 and 19 dust-bins for Rs. 190. At Yellama hill, roads were made and pits were dug out of the rock to contain water. At Rájápur a small tank was constructed and a cattle trough. At Ratnágiri a cattle trough. At Gadag-Betgeri Rs. 73 were expended for filling up holes and Rs. 264 in diverting the course of a stream that threatened the village of Betgeri. At Hubli ten dust-bins and three latrines were constructed. At Haveri a new well. At Ránebennur small roads were made. At Byádgi the new dharmshála was completed during the year. At Dhárwár Rs. 1,482 were expended on drains, Rs. 19 on dust-bins and Rs. 165 on beef shops and additional street lamps for Rs. 45.

Sind Division.

Districts.	Name of Municipality.	Population.	Annual Income.	Expenditure on Conservancy.	Districts.	Name of Municipality.	Population.	Annual Income.	Expenditure on Conservancy.
			Rs.	Rs.				Rs.	Rs.
Karáchi.	1. Karáchi	68,325	2,35,505	81,900	Shikárpur.	25. Shikárpur	42,406	45,139	35,674
	2. Kotri	8,972	14,196	8,808		26. Sukkur	27,235	1,10,395	11,713
	3. Manjhand	2,564	1,430	432		27. Gurki Vásin	5,541	3,720	1,706
	4. Sehwan	4,524	6,480	1,784		28. Larkhána	13,188	22,562	1,044
	5. Bubak	2,080	2,630	890		29. Khanbur	4,000	6,807	73
	6. Dádu	2,270	2,051	732		30. Ratodero	3,170	3,244	95
	7. Johi	1,130	1,351	317		31. Mehar	1,944	2,058	273
	8. Tatta	6,850	12,149	1,797		32. Khairpur Nathnshah	1,707	1,007	407
	9. Keti	2,141	6,248	711		33. Kotri	10,324	13,230	5,046
	10. Mirpur Bathoro ..	3,209	4,365	936		34. Ghotki	3,245	4,346	264
						35. Ubauro	2,297	909	192
	Total ..	104,721	2,87,580	63,309		Total ..	117,364	221,555	4,59,600
Hyderabad.	11. Hyderabad	45,795	1,20,063	13,672	Thar and Parkar.	36. Umarkot	9,926	5,507	876
	12. Tando Jam ..	2,072	1,247	309		37. Mitti	2,564	2,369	399
	13. Tando Mohammad Khan	3,281	3,562	1,007		38. Nagar	1,775	3,967	324
	14. Hála	3,367	3,450	974					
	15. Matári	3,054	3,012	870		Total ..	7,165	11,603	1,359
	16. Tando Alahyar ..	4,170	5,059	1,104					
	17. Tando Adam ..	4,259	7,445	726					
	18. Nasrpur	2,200	2,005	575					
	19. Shahdádpur	2,068	2,347	815					
	20. Kandiáro	2,967	1,453	274					
	21. Nawábshro	3,110	1,492	304	Upper Sind Frontier.	39. Jacobabad	7,365	26,564	4,280
	22. Tándo Ghám ..	2,216	1,069	271					
	23. Bhiria	2,498	1,863	303		Total ..	7,365	21,564	4,280
	24. Moro	2,067	1,358	322					
	Total ..	69,534	1,57,326	20,441		Grand Total ..	325,189	7,10,368	5,25,631

Water-supply.—The existing arrangements in these municipal towns are the same as those of last year. The supply is from rivers, tanks and wells. The tanks are filled during the inundation season. The scheme for bringing the Máhi water to Karáchi is fast drawing towards completion. Although the works were not quite completed the water was turned on for the public use. Pipes have been and are being laid on to all public places, gardens and private houses, &c., while stand-pipes, street services, hydrants and bullock service, &c., are devoted for the free use of the public. Two samples of water from the reservoir at Máhi were analysed and found to be of good quality. Sehwan gets its water-supply from the Aral canal and wells. The town of Bubak is surrounded by a large ditch through which the Dunsterwat flows; its water is used for drinking and other purposes. When this runs dry temporary wells are sunk in its bed. A new well was sunk during the year to the west of the town, the water of which is good and is used for drinking. In Hyderabad Collectorate the majority of the municipal towns get their supply from canals

and wells. At Shikárpur "the practice of fouling the wells by the Hindu population performing 'poojah' in them still continues; and although notices were attached to each well, still the practice continues in spite of every effort made by advice and warning to prevent it." At Jacobabad three canals run through the town; they afford an abundant supply of water during the inundation season. A new well was sunk during the year.

Drainage.—There is no regular drainage beyond surface drains to carry off rain water. Some of the towns have no surface drains as these towns are on an eminence and the rainfall is so very small that drainage is not required as any rain that does fall quickly flows off the streets. At Sukkur "the new drainage scheme for new Sukkur and Ghariliabad alluded to in last year's report was sanctioned by Government and the works were commenced during the last quarter of the year. Great progress has since been made with the underground drains, and it is anticipated that the pumping machinery will all be in position by the end of June next, so that no fear need be entertained of damage to the town even should there be a heavy rainfall during the approaching season."

Cesspools.—There are no municipal ones, but private houses in some of the municipal towns have them. At Karáchi there are covered cesspools to private houses, many of which are simply holes with dry stone lining, some of which are built of masonry; they are trapped and have ventilators. At Shikárpur the cesspools are kept clean. Those under municipal control are strewn with quicklime twice or thrice during the month. At Sukkur no new ones were built; the existing ones were kept clean and deodorised with disinfecting powder. At Lárkhána there are two reservoirs for refuse water, which are kept clean by the municipality. At Kambar two men are employed to remove the refuse water in carts.

Scavengering.—Sweepers are entertained by the various municipalities to keep the towns and streets clean. The street sweepings are taken to a distance and burnt. At Karáchi it is under consideration to lay down a light tramway from the town to the new depôt which is to be a good distance away, and it is the intention of the Municipal Commissioners to provide means for the manufacture of poudrette. At Hyderabad there are 61 iron tubs in the city for the reception of foul water, and seven galvanized iron swing donkey carts are constantly employed in removing the foul water from them. The clean sweepings were carted outside the city and used for raising one of the roads. At Sukkur poudrette is made. At Shikárpur 50 dust-bins were placed in different parts of the town and they were much appreciated by the people.

Latrines.—At most of the municipal towns there are public latrines. The night-soil is removed to a distance and either buried or deposited with street sweepings. At Kotri two new latrines were constructed. Private privies were also served by municipal sweepers at Sehwan, Bukak, Tando Jam, Tháru Sháh, Garhi Yásin and Rohri.

Urinals.—Karáchi is the only town that has any.

Markets.—The majority of the towns have markets; they are kept clean and well looked after.

Burial Grounds and Cremation Ghâts.—There are a few of both outside each municipal town.

New Works.—At Karáchi Rs. 987 were expended for cleaning and deepening road-side drains, Rs. 2,871 on pavement to roads and Rs. 35,426 for re-metalling 13 roads. At Kotri Rs. 300 on two new latrines and Rs. 153 for improving a road. At Bubak Rs. 914 on a dharmshála and Rs. 285 on a new well. At Keti Rs. 120 on a new market. At Mirpur Batoro Rs. 72 on two new latrines. At Hyderabad waste water drains were constructed and two tanks were cleaned. At Tando Rs. 705 for roofing the market. At Hála Rs. 25 on a new latrine, Rs. 150 on a drain and Rs. 66 for constructing a stall with shed for beef. At Matári Rs. 429 on bathing ghâts for men and women. At Nasarpur a cremation ghát was constructed, Rs. 183. At Shikárpur eight beef shops, a new slaughter

yard, two new closets to the Municipal Office and three streets paved. The right embankment of the Sundwah has been levelled and a wall was built along the canal to support the roadway. At Sukkur a slaughter-house, a shed in Victoria Market, an out-building of the charitable dispensary enlarged, a part of the new drainage scheme and several streets have been improved and hollows filled up and drained. At Garhi Yásin improvements to six wells, Rs. 542, and cutting jungle in the neighbourhood of the town, Rs. 35. At Rohri the Bandar road completed, Rs. 1,400. At Lárkhána a new well was purchased and a reservoir and brick pavement built for it, Rs. 560. At Kambar a new reservoir and brick pavement to a well, Rs. 80. At Umarkot repairs to wells and latrines, Rs. 142. At Mitti repairs to well and latrine, Rs. 29. At Nagar repairs to well and latrine, Rs. 101. At Jacobabad a market, three shops for beef, one enclosure for cattle brought for sale, one latrine and eight wells.

LOCAL FUND CIRCLES.

Northern Division.

Water-supply.—Is obtained from rivers, tanks and wells. In Kaira Collectorate there are 251 tanks and 332 wells. In Broach district there are 2,706 wells and 972 tanks.

New Works.—In Ahmedabad Collectorate the following works were undertaken by the Civil Agency:—8 new wells were sunk at a cost of Rs. 3,471 and 7 tanks, 25 wells, 2 troughs and 1 drain were repaired at a cost of Rs. 3,069. Eight tanks and a drain to a tank were made by the Public Works Department at a cost of Rs. 4,464. In Kaira Collectorate Rs. 16,765 were expended on 11 new wells and 10 tanks. In the Panch Mahals Rs. 1,393 were expended on 4 new wells and Rs. 2,502 on repairs to 5 wells and 4 tanks; 5 other wells were repaired. In Broach Collectorate Rs. 13,081 were expended on 29 new wells and Rs. 16 on conservancy. In Surat Collectorate 8 new tanks and 26 new wells and cattle troughs were made at a cost of Rs. 8,560, and 26 tanks and 30 wells and troughs were repaired at a cost of Rs. 15,216. Rs. 4,218 were expended on dispensaries, Rs. 2,040 on travellers' quarters and dharmshálas, on road-side trees and for watering them Rs. 6,532. In the Thána Collectorate Rs. 11,187 were expended on 15 new wells and 2 tanks and Rs. 2,157 on repairs to 12 wells and 3 tanks. A stream was dammed at a cost of Rs. 150. In Kolába Collectorate Rs. 4,716 were spent on new wells and Rs. 788 on repairs to wells and tanks and Rs. 750 on the Roha water-works, and a contribution of Rs. 1,000 was made to two dispensaries.

Central Division.

In the Ahmednagar Collectorate Rs. 14,117 were expended in the several tálukas in constructing 38 new wells and in improving several old ones. In the Násik Collectorate Rs. 7,883 were expended in constructing new wells and repairing old ones and Rs. 873 on roads. In the Poona district 5 new wells were sunk at a cost of Rs. 496 and 3 wells were repaired for Rs. 561. There being a great scarcity of water at Runmodiachi wádi a 'Hel' was constructed at a cost of Rs. 250. Prickly-pear was rooted out at 18 places at a cost of Rs. 680; two culverts were constructed at a cost of Rs. 215 to drain away the rain water from the road outside the village of Pátas. The trench system of latrines was introduced at Hade and Warwand; the expenditure under this head was Rs. 225. In the Sholápur Collectorate Rs. 1,545 were expended on conservancy. In the Khándesh Collectorate 6 wells were sunk and several old ones were repaired. In the Sátára Collectorate each village is provided with one or more public wells and a certain number of private ones except where a river is near. Some villages are greatly in want of a water-supply; to supply this want several new 'Hels' were constructed at a total cost of Rs. 900, a new well was sunk and two dharmshálás were built. Rs. 1,978 were expended in improving and building wells for 11 villages, Rs. 280 were spent in repairing old wells in the villages of Aroada and Sangwad and Rs. 786 in constructing a 'Howd' and making a well in the villages of Kapwad and Nimlak.

SOUTHERN DIVISION.

In the Kárwár Collectorate—in the Sirsi Táluka—there are 6 tanks built at the expense of Local Funds; besides these there are 3 tanks with steps; there are also wells sunk and maintained from local funds; a road was completed at a cost of Rs. 1,000. In Kumta Táluka almost every house in the villages and towns has a well; there are 6,494 wells and 861 tanks: in this táluka 8 wells and 2 tanks belong to the Local Funds Department. In Honávar Táluka water is obtained from a spring and from tanks and wells. Siddápur Táluka has about 1,539 wells and 475 tanks; there are besides several rivers and nálás containing good spring water; a well was rebuilt at Government expense, a road was constructed for Rs. 150: in the other tálukas 3 new wells were sunk, a new tank was commenced, a dharmshála was constructed, and the first shed of a market has been commenced. In Belgaum Collectorate Rs. 16,542 were expended on sanitary works. In Ratnágiri Collectorate Rs. 1,733 were spent on petty sanitary works. In the Dhárwár Collectorate Rs. 1,06,254 were expended in repairing and improving tanks and Rs. 49 on a well.

SIND DIVISION.

In the Karáchi Collectorate Rs. 150 were expended in constructing a bund around the village of Gober, Táluka Sehwan, and Rs. 260 on repairs to miscellaneous public improvements. In the Hyderabad Collectorate Rs. 489 were expended on wells: 132 wells and 13 tanks are maintained out of Local Funds and situated chiefly in towns and villages. In the Shikárpur Collectorate Rs. 2,000 were expended in sinking 4 new wells and Rs. 1,203 in repairing old wells. In the Lárkhána Táluka Rs. 186 were expended on conservancy, in Kambar Táluka Rs. 124 on conservancy, in Rato-dero Táluka Rs. 60, and in Labdarya táluka Rs. 118. In the Thar and Párkar district Rs. 162 were expended on repairs to wells and tanks.

SECTION VI.

PERSONAL PROCEEDINGS AND GENERAL REMARKS.

Mr. Lumsdaine held charge of the Sanitary Commissionership from the 1st January to the 30th April when on retirement from the service he resigned the appointment which he had held for upwards of 12 years. "The conspicuous ability with which he performed his duties" during his tenure of office obtained for him the high distinction of an acknowledgment of his services from His Excellency the Governor in Council, which was embodied in the Government Resolutions on the reports for 1881 and for 1882. I was appointed to succeed him and took charge of the office on the 1st May. I remained in Bombay until the commencement of June as I was engaged in seeing Mr. Lumsdaine's annual report through the Press, and then proceeded to Poona, where I stayed during the rains as I was nominated to be a member of a committee appointed to prepare a draft Famine Code for the Presidency.

In September I visited Bijápur in company with the Inspector General of Prisons for the purpose of inspecting the site of a camp for an extramural gang of 1,000 convicts, whom it was proposed to employ in levelling the ground, and in cleaning away the debris around the old buildings within the city before its occupation as a civil station.

2. I was about to proceed on tour at the end of October, when I was ordered down to Bombay by Government to enquire into the nuisance complained of by the Principal of the Elphinstone College caused by the deposit of town sweepings on the Byculla Flats. My orders were to submit a full and complete report on the whole subject, in fulfilment of which I tried to indicate all the insanitary conditions connected with the locality. The points I particularly noticed were that the area of the Flats, *i. e.*, the area of depression roughly speaking bounded by the Bellasis Road, Warli Road, the Máhim Woods, G. I. P. Railway and Clare Road, is about 1,500 acres in extent. This area is the lowest part of the Island, and "in parts is as low as 2 feet below mean sea level and only 3 above low water of ordinary spring tides."—(*Tulloch*). That part bounded by the Clerk Road, the compounds of houses along the Tárdeo Road, and the old main drain, has been reclaimed by town sweepings. During the past rains reclamations have been carried on at the north and south sides of Clerk Road adjoining the low caste Hindu burial grounds on each side of the road. The area now reclaimed amounts to about 72 acres. The daily average number of carts brought to the Flats is 1,074. The loads in the aggregate are estimated to weigh about 300 tons. The average depth of sweepings deposited is 6 feet, and the average depth of earth put over them is 2 inches.

Mr. Pedder's instructions of putting the sweepings in layers 4 feet thick and covering each layer with a few inches of earth, and not putting a second layer until the first had thoroughly decomposed and become fine mould, or of planting the surface reclaimed with maize or grass have not been carried out.

3. As regards the nuisance caused by the deposit of town sweepings on the Flats during the rains there can be no question. The smell arising at that season from the uncovered sweepings and especially from the ooze from them is so intense as in my opinion to be dangerous to the public health.

The sweepings do not consist of simply litter, as the refuse from the beef, mutton, fish, as well as from the vegetable markets, and also the solid matter removed from the night-soil depôt, and during the rains about 200 cart loads of cowdung are daily deposited on the Flats. The sickening and well known smell arising from which although not solely to be ascribed to the emanations from the town sweepings, yet in my opinion is mainly caused by them, and I also think that the general insanitary condition of the Flats exerts a most unfavourable influence upon the health of the inhabitants of the districts of Kámáthipura, Byculla and Parel, which are contiguous to them.

4. The average fall of rain at Colába is 70 inches; it is more over the Flats, but take it at 70 inches. An inch of rain represents 100 tons per acre. Therefore there must be annually the enormous amount of 504,000 tons of rain falling over the 72 acres of reclaimed ground. The principal part of this does not run off from the surface, but sinks into the mass of decomposing matter, and gradually passes away, and in my opinion soaks down to the uncovered portion of the Flats. No attempt had been made, when I inspected the place on the north side of the Clerk Road, where town sweepings were being deposited, to cover them over with earth. The foul ooze from which was fetid beyond description. The Municipal authorities however at my request had the surface of these sweepings as well as the ooze from them covered with earth. After this was done the smell very considerably abated, and the Acting Health Officer, Dr. Davidson, was also good enough to cause holes to be dug over this ground; it was most instructive to notice how quickly they filled with water, which gushed out in streams from the upper levels, and how extremely active was the process of decomposition as evinced by the rapid evolution of gas into the water which was in fact seething with it.

5. The deposit of town sweepings on the Flats is as I have said, in my opinion, the principal source of nuisance, but at the same time I pointed out that there were other sources of danger to the public health, and that by doing away with the deposit of town sweepings, it must not be thought that all source of nuisance will be removed. The causes of the nuisances other than the deposit of town sweepings were thus enumerated:—

1*st*.—The water which lies stagnant on the Flats after the rains on such portions which are only partially drained and which remains exposed until by gradual absorption and evaporation it disappears.

This state of things is largely due, in my opinion, to the four main roads across the Flats which have been considerably raised above their level but have not been provided with a sufficient waterway under them; consequently they act as bunds and prevent the free escape of the storm water falling over the Flats in its passage to the sea.

2*nd*.—Portions of the Flats have been raised by mill owners and others so that the filled in spaces prevent the natural flow of the storm water.

3*rd*.—The embankments of the two railways which cross the Flats also act as additional bunds.

4*th*.—These embankments were made by excavating deep trenches alongside the lines in which the storm water stagnates and becomes very offensive before it dries up.

5*th*.—The Municipality has, since 1873, allowed several burial grounds to be constructed and for this purpose portions of the Flats have been filled in which not only act as bunds but must add to the insalubrity of the district by the offensive character of the effluent water, and by the gases of decomposition passing through the earth.

6*th*.—The condition of the district of Agripada with its open drains in which sullage stagnates, and the utter absence of any efficient drainage so that the water has to be lifted by buckets to make it flow and the neglected sanitary state of this section of the town is also a source of preventible disease.

7*th*.—The large number of buffaloes which are kept in Gidjan sheds and allowed to bathe in the tank on the Haines Road.

8*th*.—The trench dug in the surface called the Agripada drain which crosses the Flats and enters the old main drain.

9*th*.—The rice cultivation allowed on the Flats even in such close proximity to houses as the junction of the Haines, Clerk, and Arthur Roads.

10*th*.—The state of Dhobiwada and the numerous tanks on the Flats.

11*th*.—The old open main drain.

6. The measures I recommended to improve matters were:

1*st*.—That the whole area of ground reclaimed by town sweepings should be put at once under cultivation, leaving only a small portion on which the town sweepings should be deposited and burnt until arrangements could be perfected for removing them out of the Island. I suggested that a thick grove of trees be planted all round the margins of the reclamation, and that the whole of the area should not only be surface-drained, but *that a system of under-drainage* should be immediately undertaken, so that by lowering the water level in the reclaimed area, and especially by the aeration of the subsoil, the process of decomposition may be accelerated. I also strongly urged that the erection of any building over land reclaimed by town sweepings be expressly forbidden by legislation. Mr. Lumsdaine before leaving Bombay begged me to bring this to the notice of Government, and I think it is a most important matter.

I may here mention that by the kindness of Mr. Kittredge I lately (March) inspected a well that was being excavated on the ground belonging to the Tramway Company at Colába Causeway. This ground was in 1853 (31 years ago) filled in with town sweepings. It was most instructive to see that at a depth of 5½ feet below the surface the sweepings had not decomposed. Pieces of hay, straw, &c., were quite distinguishable, and Mr. Kittredge informed me that the same condition was observed wherever he had sunk foundations. Many years ago I noticed a similar state of matters in a trench which was being dug in the street opposite the Town Hall. The ground there had been filled in with town sweepings but no one then in Bombay could tell me when they had been deposited. The sweepings had not decomposed, and I well remember the great stench arising from the trench.

2*nd*.—That no rice cultivation should be allowed on the Flats.

3*rd*.—That the owners of low-lying ground be compelled not only to fill it up to a level, as suggested by Mr. Walton, of 85° Town Hall datum, but should likewise be compelled, in accordance with his recommendation, to provide proper means for surface drainage.

4*th*.—That the Railway Companies be invited to fill in the earthen trenches within their ground alongside each line of railway.

5*th*.—That the low-lying ground belonging to Government on the Flats, which does not exceed 49 acres in area, should likewise be filled in.

6*th*.—That when the whole area of the Flats has been filled in, that it should be provided with storm water drains, but in the meantime that something might be done to relieve the stagnation of water by making permanent open channels across the Flats and by making culverts under the roads.

7*th*.—That the sanitary condition of the whole district of Agripada should at once be improved, and that Mr. Walton's proposals for the sewerage of the district be carried out. The numerous tanks in this neighbourhood should be filled in, and additional public latrines should be built, and that no buffaloes, except in properly constructed and well drained stables, should be allowed, and that the bathing of these animals in the tanks be forthwith stopped.

8*th*.—That all the existing burial-grounds south-east of a line drawn from the Love Grove Pumping Station to the line of the Carrol Road should be closed and filled in to the level of 85° on Town Hall datum, and that they should not only be provided with surface but also with subsoil drains and be thickly planted with trees.

In conclusion, I stated that although Mr. Walton's proposed sewerage and drainage arrangements when completed will undoubtedly vastly improve the sanitary condition of this quarter of the town, yet I view with considerable apprehension the turning of that portion of the Flats bounded by the Hornby Vellade, the Clerk Road, and the old main drain into a storm water reservoir. It appears to me that there is percolation from the sea through the Hornby

Vellade, and this is the lowest part of the Flats, and the tendency of water falling on them will be to force its way to it. In my opinion, if it is requsite to keep it as a storm water reservoir, its sides down to the subjacent rock should be made water-tight so that the subsoil water from the upper levels may be cut off from it, and the percolation of the sea and subsoil water should be absolutely prevented, otherwise I fear it will become a sewage lake and add to the insalubrity of the district.

Mr. Ollivant returned to Bombay in November, and the whole of the reclaimed ground has since the date of my report been covered over with earth, and at present each day's deposit is covered as quickly as possible. The question of the removal of the town sweepings from the Island is not at present decided, but I think it must eventually come to that, as the area available for reclamation is now so limited, there is but little space left where they could be deposited.

7. I am glad to record that His Excellency the Governor in Council determined that the nuisance arising from the night-soil depôt in the vicinity of the Native Infantry Lines, and the Public Markets at Bori Bandar, should not, any longer, be allowed to continue without some measures being taken to remove it, and that the harbour shall no longer be fouled by all the night-soil of the town being pumped into it.

I was directed by Government to state what steps I should recommend being taken to get rid of, or, at any rate, to abate this nuisance. I accordingly submitted a report, in which I stated that in my opinion it will continue until the Municipality is compelled to take steps for its removal, and I made suggestions for its immediate abatement. Mr. Ollivant, the Municipal Commissioner, was also directed by Government to state when the drainage operations now in progress will relieve the city of Bombay from the present most serious and noxious nuisance at the Carnac Bandar, and in reply submitted a most able report pointing out the difficulties which surround the question and making suggestions for the abatement and removal of the nuisance. Mr. Ollivant particularly noticed that one of the greatest objections to the admission of the night-soil into the sewers is the insufficiency of the present water-supply. I may here remark that the Corporation has had this subject under discussion during the past year and that the Tansa Scheme, as proposed by Major Tulloch, R. E., has been revived. I earnestly trust that the Corporation will decide on its adoption as if the works were energetically carried out Bombay might within five years have an unrivalled water-supply which would prove its best insurance against cholera and which would ensure the success of the sewerage scheme.

8. On receipt of Mr. Ollivant's letter, Government issued the following Resolution, No. 1049, General Department, dated 29th March, which is one of the most important documents affecting the welfare of this city that has been published in my time, and which indicates the determination of Government to compel the adoption of measures to remove the horrible nuisance from which the troops as well as the general public both on shore and afloat have for so many years past suffered, and to prevent the food supplies of this great city being exposed to fœcal emanations :—

No. 1049.

GENERAL DEPARTMENT.

Bombay Castle, 29th March 1884.

RESOLUTION.—The Municipal Commissioner should be thanked for his comprehensive and well considered report upon both the facts and the possible methods of dealing with this difficult and important question.

2. The result, however, of a perusal of Mr. Ollivant's report is to strengthen the conviction entertained by the Governor in Council of the necessity for insisting upon speedy action on the part of the Municipal Corporation who in view of the great difficulties of the case have allowed matters to remain practically in *statu quo* and have not adopted any measures to remedy a state of affairs which cannot but be regarded as discreditable to such a city as Bombay.

3. After long consideration a project for water conservancy was sanctioned. Under that project the excreta and filth other than that removed by scavengers were to be conveyed by house connections through a system of sewers to Warli and pumped into the sea at that place. The Municipality are as yet far from the realisation of this scheme. The system of sewers is in process of construction but over a large area it has not yet been commenced. No house connections have been made. The fresh water-supply is confessedly inadequate for the purposes of conservancy, and Mr. Ollivant satisfied himself when in Europe that sea water could not be satisfactorily employed to flush the sewers. Further, the system of water conservancy is strongly opposed in some quarters, and there can be no doubt but that it is foreign to the habits of the population and its introduction is beset with difficulties.

4. It is not too much to say that for many years to come the proposed system cannot be completed, and that there is little prospect that the excreta of the city will be satisfactorily removed under this scheme within any measurable space of time. Moreover it is to be noticed that the sanctioned plan does not provide for more than one-half of the Island and although that half is by far the most thickly inhabited the population of the other half lying north of Byculla is growing rapidly and is likely to continue to increase. Unless therefore and until some fresh scheme is devised, all the night-soil from the northern portion of the Island, as well as that from the southern part where the sewers and house connections are not completed, will have in future as now to continue to be conveyed to the Carnac Bandar Depôt and thence cast into the harbour. But this is in the opinion of the Governor in Council a state of things which cannot be permitted to exist for a further indefinite period. It is discreditable that so rude and miserable an expedient as the daily pollution of the crowded harbour with many tons of ordure pumped out of the Carnac Bandar Depôt should be treated as the only means of disposing of the mass of the human excreta of so wealthy, populous and civilised a city as Bombay.

5. The Governor in Council would indicate as other possible expedients the removal in wagons either by rail or by a separate tramway to be constructed by the Municipality of the night-soil and of the town sweepings and other refuse to some non-populous place outside the Island, or the transport in barges to sea or to some place adjoining the harbour where it could be burnt or buried of the mass of excreta now thrown into the harbour off the Carnac Bandar. Both expedients might be employed at the same time but for different parts of the Island, as it seems to Government most objectionable that the solid refuse should be carried from the northern districts through the city to the Carnac Bandar, and the barges might be loaded not at the Carnac Bandar alone but also at Sewri and Mazgaon.

6. The Municipal Commissioner's report has led Government to the conclusion also that, as is the case in Paris and other places mentioned so too in Bombay there must for a long time to come, and probably for ever, be more than one system of conservancy in operation, and that therefore it is not an insuperable objection to any system that it will not work satisfactorily at all times of the year and in all parts of the Island. For example if no better device can be invented than to shoot the night-soil into barges at the Carnac Bandar alone, or at that and other Bandars, it would not be a conclusive argument against the adoption of that expedient that it could not be carried out during the entire year. It would clearly be better to take the filth out to sea for eight months than to throw it into the harbour during all the twelve months, and during the four monsoon months when the weather is too rough to permit of barges being towed outside the harbour the movement of the water in the harbour is such as to render the deposit of night-soil in it less harmful than is the case when the sea is calm and the mass of ordure is but slowly distributed.

7. In any case, however, whatever may be the plan or plans pursued, the Governor in Council feels himself in duty bound to press upon the Municipality the necessity of some abatement being effected of the gigantic and intolerable nuisance connected with the maintenance of the Carnac Bandar Depôt. The present arrangements, His Excellency feels sure, are regarded by the Municipality as most defective and even disgraceful and it cannot be intended that they should

continue for a further indefinite period. Some better system must be adopted for the disposal of the night-soil in the districts within the Island of Bombay which the sanctioned scheme will not reach, and also of the excreta in the districts which will come within the operation of that scheme until the works needed to carry out that scheme are completed. It is possible that such a system might save a large part of the contemplated outlay for many years to come. The Municipal Commissioner should accordingly be requested to place the views held by Government on this subject before the Municipal Corporation and to invite their immediate consideration of the circumstances above stated, in the hope that the Commissioner will be enabled shortly to inform Government that some better means will be adopted within a definite period of disposing of the night-soil than that of merely pumping it as now into the harbour. The Governor in Council would be most reluctant to interfere with the free action of the Corporation, in whose management of the important affairs of the city he has great confidence, but in view of the important interests involved extending beyond those of the city His Excellency feels that the time has come when the Executive Government must require of the Municipal authorities the fulfilment of one of their most important duties.

8. In the United Kingdom, as in Bombay, Municipal bodies have often delayed to deal adequately with similar tasks, and Government have been compelled to use their statutory powers to compel the adoption of measures of conservancy which would not be injurious to health or obnoxious to other centres of population. Notable instances may be adduced in the case of the large towns in the Thames Valley, which including the Metropolis till within a short period had no drainage except into the river Thames; but now the absolute necessities of the case have brought about a variety of better expedients. The Municipal Commissioner should be desired to intimate at the same time to the Corporation that the Governor in Council will be glad in view of the difficulties of the situation to give to the Municipality the best professional advice and assistance at the disposal of Government, and, should the Corporation so wish, to appoint a small commission on which the Corporation should be strongly represented to enquire into and advise on the subject.

(Signed) JOHN NUGENT,
Chief Secretary to Government.

9. I may mention in connection with this subject that I inspected the water closets which have been erected as an experiment in the native town, and I have come to the conclusion that with a plentiful supply of water they are a success. They were free from smell, and the natives have found no difficulty in using them. Of course they require supervision, but their immense superiority over the common native privy must be acknowledged by every impartial observer.

10. The improvements in the city of Bombay which have taken place during the last 10 years have been many. Perhaps no greater has been effected than the raising of the ground level in Khetvádi by filling it in. On all sides I see places which I remember to have been sources of disease gradually being improved, but the town is still an Augean stable and requires an immense deal to be done to it before it can be considered as at all approaching a satisfactory condition; one of the greatest wants from a sanitary point of view, after an additional water-supply and the completion of the sewerage scheme is, in my opinion, a Building Act. This want, ever since the Municipality has been established now 19 years ago, has been repeatedly brought to notice, but the question has always been shelved as it would be unpopular among the property-owning classes. Still I think that in the interests of public health it should be urged again and again. I suppose there is no city in the world of the size and importance of Bombay, in which some law to regulate buildings does not exist. The sections in the Bombay Municipal Act which refer to buildings are very meagre, and do not give the officers entrusted with the supervision of the public health sufficient power to defend the poor against the greed of the wealthy owners. I feel it to be my duty to point this want out to Government in the hopes that it may, if it sees fit, be pleased to appoint a committee to take evidence regarding the difficulties which are met with by there not being such a law in force.

11. Another point I would notice is that nothing seems to have been done to remove the Mahomedan burial-grounds from the midst of the inhabited areas. The grave-yards along the Queen's Road and in Grant Road are still existing. Surely they cannot be allowed to continue without some steps being taken to remove them. The Christian community have to remove their dead to Siwri and Mátunga, and I trust the attention of the Corporation will be directed to this subject.

12. I hope also the subject of erecting a crematorium at Tank Bandar for burning the bodies of deceased Hindus will be revived, as burial in the land on the Flats, which has been reserved for this purpose, can only be considered as a temporary arrangement, and one that, from a sanitary point of view, is far inferior to the cleanly method of disposing of the dead by burning.

13. On the completion of this duty in Bombay, I proceeded on tour, and travelled through part of the Poona District, and made especial inspections of the municipal towns of Talegaon Dhamdhera and Sirúr on my way to Ahmednagar, where I inspected the city, camp and the Municipality of Bhingár. I then proceeded *vid* Dhond and Pátas to Bárámati in the Poona District, and next visited Indápur. After leaving which I entered the Sholápur Collectorate and went to Pandharpur, from whence I proceeded to Sángola and thence by way of Naguj and Dufflápur to Athni in the Belgaum Collectorate. I also visited Gokák and Yamkanmardi on my way to Belgaum, whence I returned *vid* Kolhápur to Poona and Bombay.

14. At each municipal town inspected I invited the municipal commissioners to accompany me round the town, and took occasion to point out to them those sanitary defects which attracted my attention, and I also reported to the Collector the result of my inspection. It seems to me that as a rule in the smaller municipalities the commissioners do not consider it to be any part of their duty to make any inspections whatever into the sanitary conditions of the towns they live in and they almost invariably delegate this important duty to the municipal secretary, who has generally speaking had no sanitary education at all and who trusts a great deal too much to the muccadum. I recommend that each municipal area be divided into as many sections as there are municipal commissioners and that each municipal commissioner take charge of a section, which he should thoroughly inspect at least once a week, and see that the scavengering and halalcore establishments efficiently perform their duties, and he should insist on the Secretary taking such action as is provided in the sanitary clauses of the Act, and in the bye-laws regarding all offences against the public health. If each municipal commissioner followed this course the people would be able to make known their wants to the official representing their interests, and much good would, I feel confident, result.

15. In some of our large municipalities there are among the municipal commissioners gentlemen who thoroughly appreciate the necessity for sanitary reform, and whose knowledge of the requirements of the place, and of sanitary science, renders them capable of forming an excellent opinion regarding what ought to be done. Among such I must particularly mention Khán Bahádur Framji Ardeshir, the energetic and zealous Chairman of the Ahmednagar Municipality, and Mr. Ranchodlal Chotalal, the Chairman of the Municipal Commissioners at Ahmedabad. During a late visit to Ahmedabad I had the opportunity of perusing a memorandum, which Mr. Ranchodlal had written for the benefit of his colleagues, and the thorough knowledge of the subject displayed in it as well as the extremely practical and sound advice given in it struck me so forcibly that I submitted it to Government with a request that I might be permitted to have it printed as an appendix to my annual report as in my opinion it is a most remarkable document to have been written by a native gentleman, and it will show the Secretary of State the great good that is being effected in this country by the publication of the memoranda of the Army Sanitary Commission. It will also, I hope, give a stimulus to commissioners in other municipalities to follow so excellent an example. I was however much struck whilst inspecting the smaller municipalities with the ignorance the commissioners as a rule displayed regarding even elementary sanitary principles. I think this depends a great deal on their never having had their attention directed to the question, and I think much good would follow if a treatise embodying the advice given by the Army Sanitary Commission in the Revised Suggestions could be circulated in the vernacular to all muni-

cipalities and villages. Such a pamphlet is in course of preparation by a native gentleman, Ráo Sáheb M. Namjoshi, a very intelligent Municipal Commissioner of Poona City, which will, I hope, be published and circulated during the year. As he of course has an intimate knowledge of the customs and habits of his own countrymen, and is already well known for his interest in sanitary matters, I hope his advice will be sound, practical, convincing, and that it will awaken in the people a sense of the dangers they are exposed to, and of which they are at present totally ignorant.

16. The necessity for the introduction of village sanitation was more than ever impressed upon me during my tour. This subject, as I stated in a letter to Government in August, really lies at the bottom of effective sanitation in this Presidency, and has a wider scope than would at first sight appear; for, from villages spring up the great cholera epidemics which every third or fourth year ravage whole provinces of the continent of India, and which cause an amount of human misery and a pecuniary loss to the country which is not confined to India, but which also impede the operations of commerce in its communication with Europe by the enforcement of quarantine in those countries which have not learnt to rely on sanitation as the only trustworthy defence against epidemic disease. Government was not however pleased to approve of a suggestion I then made that a committee should be appointed to report for general adoption in villages throughout the Presidency what measures are practicable and what action is necessary to carry them out, but sanctioned the appointment of a committee to make a searching enquiry into the sanitary condition of the villages of Ghorepuri, Wanowri, Bhamburda and Yerowda, which are in the vicinity of the Cantonment and City of Poona. The committee was ordered to report on the measures which would make them more healthy and the causes which have made these villages sources of danger to a large civil population and a considerable number of European and Native Troops, the resolution stating that the information thus obtained may enable Government to take in other villages also precautions which will lead to a great improvement in district sanitation.

17. The committee was composed of H. E. Winter, Esq., C.S., 1st Assistant to the Collector of Poona; Surgeon Major Davidson; Captain Proudfoot; A. H. Plunkett, Esq., Cantonment Magistrate, and myself. The report we submitted showed that filth was the most noticeable matter in each village and the following extract from the Memorandum of the Army Sanitary Commission seemed as if written after a visit to these particular villages: "The known causes of fatal malarial fevers in India may be here adduced as showing their probable nature in the Bombay Presidency until we obtain more definite information on the subject. They are local filth and local damp, or wetness of subsoils under and around village sites and houses, cesspits, bad water consequent on filth, damp houses and subsoils consequent on want of surface drainage or from subsoil infiltration from rivers, from irrigation where too much water is used, or from tanks or water springs on higher levels, overgrowth of jungle, keeping cattle in houses or compounds, sources of malaria in nálás, wet land in which water stagnates, and the like. The more immediately important causes are those arising from want of cleanliness, with which the people might deal at once."

18. The committee made specific recommendations regarding each village, and drew attention to the directions contained in the revised suggestions of the Army Sanitary Commission regarding villages, and stated that it could see no reason why they could not be carried out not only in the villages named but in every other village in the Presidency.

The committee suggested that a boundary of not less than 200 yards around each village should be fixed within which no filth of any kind should be deposited and that beyond this distance the places of natural resort should be selected, and that, if possible, a family of Bhangis be maintained to bury the night-soil deposited in the field, but in those villages where there are no Bhangis that the Pátel should cause it to be buried in trenches.

The committee being aware that at present there are no funds recommended that a small portion of the land revenue of each village be assigned for conservancy purposes.

The committee further considered that in every village the cattle should be penned inside an enclosure, and that no cattle should be allowed to be kept inside the houses or even in the compounds except in proper stables.

19. I am glad to be able to record that the subject of village conservancy and sanitation has been taken up by Mr. Crawford, C.S., the Commissioner Southern Division, who has called for information on the subject from all the Collectors in the Southern Division. Mr. Crawford in his letter No. P—66, dated 15th January 1884, to Government says: "Every year the necessity for rural or village sanitation is impressed upon us by the Government of India, the Local Government, Sanitary and Deputy Commissioners and enthusiastic writers of all classes, but *practically* so beset is the question by difficulty that very little is being effected. In the hope that information and opinions received may elicit something practical and enable us to grapple with some success with the question I have issued a circular to all Collectors, and I hope that during next monsoon it may be possible to place something definite before Government.

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"Of one thing I am quite convinced, viz., that it is hopeless to wait until the example of the few municipalities scattered over the country shall arouse villages to a sense of the importance of cleanliness and that the responsibility lies upon Government and district officials to attempt something practical in that direction." Government in its resolution, General Department, No. 695, dated 29th February 1884, says: "The question of village sanitation cannot be pressed too strongly on the attention of the district officers. Government are glad to observe that an initiative in the matter has already been taken by Mr. Crawford which may lead to important information being collected. The Commissioners of N. D., C. D., and in Sind, should be requested to obtain from the Collectors under their control information similar to that called for from the Collectors of the Southern Division. When the replies of the Collectors have been received they should be forwarded to Government by the Commissioners with their remarks."

I trust that by next year some definite line of action will have been sanctioned by Government, and that at last a systematic effort will be made to introduce sanitary measures into the villages of the Presidency.

20. In connection with this subject I may mention as another of the most important sanitary events of the year that Government has provided in the amended District Municipal Act power for forming groups of villages into municipal districts and thus for introducing sanitary measures into them. The following extract from the report of the Select Committee appointed to consider the Bill which was published under the proceedings of the Legislative Department, Bombay, in the *Bombay Government Gazette* of the 13th December 1883, will fully set forth what has since been embodied in the Act:—

"The committee has considered the proposals made by the Sanitary Commissioner in a letter to Government, which has been placed before the committee. The purport of these proposals is that the Governor in Council should have power to establish municipal districts of an elementary kind for purposes of sanitation in villages, and specially in those villages which adjoin large towns. It seems to the committee very expedient to give this power in the Bill, though it may not be possible to exercise it otherwise than very partially and gradually. The committee therefore makes the following recommendations for this purpose. By Act VI. of 1873, Section 3—definition of 'place'—read with Section 4, the Governor in Council was empowered to 'include any village or lands immediately adjacent' to a city or town in one municipal district with that city or town, but no power is taken in Act VI. to add such village or land to a municipal district once constituted, nor could two or more villages be constituted a municipal district under that Act. In the Bill, Section 5, the Governor in Council has power to extend, contract, or otherwise alter the limits of any Municipal district,—a power which will of course be exercised with great consideration for the interests of the municipality, but which, subject to that proviso, may be used to attach to a municipal district an adjoining village for sanitary purposes. The committee proposes to define a municipal district as a 'local area;' the Governor in Council may (Section 5) by notification in the *Govern-*

ment Gazette declare any local area to be a municipal district, and (new Section 8) such local area may comprise either a city, town, &c., or 'a village or suburb or two or more neighbouring villages and suburbs.' The proviso as to being 'separated by an extent of more than one mile of land unoccupied by houses' and the proviso as to population may be set aside 'for exceptional reasons.' A group of villages, therefore, may be constituted a municipal district, the municipality being constituted as may seem best under Section 12. The taxes, if any, to be raised therein may be carefully regulated under Section 30 (*h*) and (*m*). The advantage secured will be that any part of a district in which special sanitary measures are needed may be subjected to municipal law administered by a competent body of commissioners, many of whom may also be members of the Táluka Local Board."

21. A good deal of correspondence has taken place, during the year, with the Military Department of Government, and the Quarter Master General of the Army, principally with reference to the reports I submitted on the Cantonments of Mhow, Neemuch and Nasirabad.

22. I must record among the sanitary events of the year that Colonel Pottinger, R. A., Acting Secretary to Government, Military Department, drew up the following most important and comprehensive memorandum on the subject of obtaining some substitute for mussacks and puckauls and suggested that the Government of India should be solicited to offer a reward of £100 for an efficient substitute for these articles :—

"The Sanitary Commissioner to the Government of Bombay has repeatedly and persistently drawn attention to the great danger soldiers in this country are exposed to from drinking water contaminated by its distribution through 'filthy mussacks' (water-skins). He gives several examples in his reports showing how analysis has proved that water comparatively good when drawn from wells or other sources, had become loaded with dangerous impurities in consequence of its distribution through mussacks; and in his special report on enteric fever, lately submitted, he urges that 'The bheestie's mussack should, at all events 'in Cantonments, be once and for ever discontinued and galvanised iron vessels substi-'tuted for it, and for the wooden barrels in cook-rooms.'

"2. A similar recommendation was made in the Sanitary Commissioner's last report on the Cantonment of Mhow, and the Quarter Master General made the following remarks on the suggestion :—

> 'This is a question which concerns the whole of the troops belonging to the Army in India, but however desirable the change may be, it is not one that can be hastily introduced. His Excellency the Commander-in-Chief thinks that for the present it will be sufficient to point out to Commanding Officers the necessity of exercising a close supervision over the mussacks in use with their respective corps, and arranging to have them opened, cleaned and inspected periodically.'

and a circular to this effect has just been issued by the Quarter Master General.

"The Surgeon General, Her Majesty's Forces, in reviewing Dr. Hewlett's report on enteric fever, says: 'I quite concur that the time has fully arrived when the antiquated and 'vicious system we have so long endured of receiving our drinking water by means of a foul 'and sometimes mouldy leathern bag should be for ever abolished.'

"4. Skins of animals have been used from time immemorial for the purpose of carrying water, nevertheless medical men assert—and they are supported by the results of scientific investigation—that this method of distributing drinking water is certainly fraught with danger.

"5. The vital statistics of the European Army in India for the ten years from 1870—79 show that in the Bombay Army the average daily sick rate was 57·4 per 1,000 of strength, or in other words, that out of an army of 10,000 men there were 574 men daily in hospital unfit for duty.

"6. The Sanitary Commissioner has forcibly pointed out that this large sick rate is due, in a great measure, to *preventable causes* and amongst these he gives prominence to the method of distributing drinking water by means of mussacks and puckauls.

"7. The difficulty is to find an efficient substitute. I believe that Lord Napier of Magdala when in command of the Bombay Army took up the question, but I can find no record of what was done, and it seems unlikely that a better way of carrying water will be suggested until some inducement is held forth to men of ingenuity to turn their attention to the subject—more especially those with factories and workshops to enable them to carry out experiments with facility—and with this object in view I beg to suggest that the sanction of the Government of India should be solicited to offer a reward of £100 for an efficient substitute for mussacks and puckauls.

"8. An efficient substitute would necessarily be a vessel or vessels fulfilling the following conditions :—

(1).—Of moderate cost, light, strong and durable, calculated to stand fair wear and tear—or even rough usage—simple in construction, easily repaired and made of material from which water could not possibly absorb any impurities.

(2).—Capable of being easily carried

(*a*).—By a man,

(*b*).—By a bullock or mule.

(3).—Capable of containing the same quantity of water that is now carried

A regimental bhistie's mussack costs from Rs. 3 to Rs. 4. It contains from 5 to 6 gallons of water, and when full weighs between 50 and 60 lbs.

(*a*).—In a bhistie's mussack.

The cost of a pair of bullock puckauls is from Rs. 13 to Rs. 15. They contain from 20 to 25 gallons of water and when full weigh between 200 and 250 lbs.

(*b*).—In a pair of bullock puckauls.

(4).—Capable of being filled with facility and of delivering water easily;

(5).—Capable of being easily opened for cleansing and inspection.

"9. If the proposed reward is sanctioned, I would suggest its wide publicity, and a notification by advertisement that all competitors are required to send the articles they recommend to the Commissary General, Bombay, by the 1st January 1885; they could then be handed over to a committee of experienced officers for a full report on the merits of each, after subjecting them to such trial as they might deem necessary to ascertain if they fulfilled the requisite conditions. At the same time, Government should reserve to themselves the right of withholding the reward in the event of none of the contributions coming up to a sufficient standard of merit."

I regret to say that the Government of India has declined to permit the offer of the proposed reward, believing if the necessity for such were made known that competitors would come forward in the hope of obtaining a profit by the supply of the new article.

23. Whilst at Ahmednagar on tour, I took advantage of the Infantry Barracks being temporarily vacant to cause the floor of the verandah of No. 2 barrack to be opened up at the end nearest the washing room, from which it is separated by a passage 3 feet wide though the plinths of the two buildings are continuous. Signs of dampness were observable on the barrack room wall both from the verandah and on the wall inside the barrack room. The barracks had been vacated 24 days previous to my inspection and no water from that time had been used in the wash-house. On removing the stone flooring I found that the rubble masonry in which it was laid was very damp, and the earth below was extremely damp and had a mouldy smell. The hole was dug for a depth of about 4 feet, or about a foot below the natural level of the ground on which the barrack stands, and all the earth taken out was damp. Five out of the 12 barracks presented signs of dampness on the external walls of the plinth, and there can be no doubt that the filling in beneath all the barracks is rendered damp from the water from the wash-houses percolating into it. I accordingly strongly recommended that new wash-houses detached from the barrack rooms, and with their floors covered with a layer of asphalt or Portland cement or other impermeable material be erected.

24. To illustrate the great danger from damp below sleeping rooms, I think it may be useful to give the following instance. In 1877 the Bishop of Bombay resided in a house in Poona where he was attacked with remittent fever which put his life into the most serious peril. He was removed to Bombay and barely escaped after a very protracted illness. Shortly after the Bishop had left Poona some ladies connected with the Mission came to reside in the house. One young lady who had recently arrived from England occupied the room which the Bishop had used and her bed was placed over the same spot on which the Bishop's bed had stood. This young lady was shortly afterwards attacked with fever, which developed into enteric fever from which she died. A physician connected with the Mission attempted in vain to discover the cause of the fever which had brought the Bishop to death's door and from which this young lady had died, but he could find nothing in the compound or its surroundings which would account for the illness. At last he bethought him of opening up the floor of the bed-room, and then all was made clear, for although not the slightest smell had ever been noticed in the room it was found that the ground below the floor was very damp and the smell on digging down was so bad that he had to run away. The dampness was supposed to have arisen from the bath-room water finding its way into the foundation through a rat-hole.

25. Among other matters, I may mention, I drew up, with the concurrence of the Quarter Master General of the Army, a form of sanitary report for stations. I was much impressed, during my late enquiry regarding enteric fever among British troops, with the meagreness of the information obtainable as to the healthiness or the reverse of the different lines in a station. I am certain that there is but little hope of tracing disease among the troops to its cause until it is systematically localized.

26. Dr. Bryden's tables, published by the Sanitary Commissioner with the Government of India, show causes of admissions for specified diseases into hospital, and the deaths as they occur among all the British troops occupying a *station*. These statistics for the purpose of the Sanitary Commissioner with the Government of India, who reviews the vital statistics of the Army of India as a whole, are for his purposes doubtless simply invaluable, but it seems to me that the work of the Provincial Sanitary Commissioners commences where his ends, and that it is our duty to analyse the *station* returns and to distribute the causes of admissions and deaths to each component part of a cantonment, and to trace the causes of admissions and deaths first as they affect each particular set of lines, and next as they affect individual barracks in each set of lines. At present there is no record to say whether any particular barrack in each set of lines is more unhealthy than another, or if so to show what the cause is. This seems to me a great want; for I hold most strongly that every disease is due to a distinct cause, and that until such disease is traced to a cause, we are proceeding in an entirely unscientific manner.

27. It is impossible for any sanitary officer at once to pronounce this or that barrack healthy or the reverse until he knows from what diseases the men occupying it have suffered, and the ratio to strength of admissions and deaths from each specified disease in each particular barrack. What I want, therefore, is that each barrack should have its sanitary history sheet. If this were done a mass of information would be collected which would greatly assist sanitary reform in the Army of India, as we should then be able not only to say whether the station was a healthy one or not but be able to pronounce an opinion on each lines; and if we found that from such and such lines men had been admitted at an undue rate, the enquiry could be carried still further and endeavours be made to find out the particular barracks from which the admissions took place. The statistics of men living in widely separated barracks, and in barracks of different designs and constructions and under different sanitary conditions, can give only the most meagre information, which is simply valueless in tracing disease to a cause. Take the Cantonment of Mhow for example, where there is a cavalry regiment occupying one set of barracks at one end of the station, a heavy battery in another of different construction in another part, a field battery in a third set also different from either of the others and an Infantry regiment in another set. The sanitary condition of each set of barracks differs from that of the other. The Infantry Barracks are exposed to insanitary conditions, which do not affect the Cavalry, whilst the Cavalry are exposed to influences from which the Infantry are free, and the Artillery are subject to conditions which affect neither Cavalry nor Infantry.

The following statement taken from my report on Mhow will show the varying proportions of the incidence of disease among each arm and points conclusively to different causes having affected each body of men :—

Diseases.	Ratio per 1,000 of Average Strength, 1865—81.		
	Cavalry.	Artillery.	Infantry.
Cholera	1·8	3·2	2·8
Enteric fever	6·0	1·1	2·3
All other fevers	565·2	653·7	855·5
Diarrhœa	47·4	58·6	52·4
Dysentery	14·9	25·0	15·3
All causes	1,584·1	1,578·1	1,659·8

This information could not have been obtained by merely showing the disease statistics in one line thus :—

	Ratio per 1,000 of Average Strength, 1863—81.					
	Cholera.	Enteric Fever.	All other Fevers.	Diarrhœa.	Dysentery.	All Causes.
Mhow ...	2·6	3·1	732·1	52·4	17·3	1,621·2

28. Then again take Nasirabad. The statistics arranged according to the station show that during the 10 years ending 31st December 1881 there were 43 admissions and 30 deaths from enteric fever among all the British troops there stationed. Most erroneous conclusions would be formed by accepting these figures as regards enteric fever in this station; for on analysis it is found that out of 43 admissions only 3 (2 of which terminated fatally) took place among the Royal Artillery, whilst 40 admissions and 28 deaths took place among the Infantry, the percentage of admissions to average strength being 8·32 among the Infantry whilst among the Royal Artillery it was only 2·13. I was anxious to carry the analysis of these cases to their legitimate conclusion, and to find out from what barracks they were admitted, but there was no information obtainable on this most important point.

29. I therefore drew up forms, which in order to save medical officers trouble I assimilated as much as possible to the annual return M. H. F. No. 10. I was obliged to make some alteration in it as in Form XVI. showing the monthly distribution of disease, all paroxysmal fevers, including the mildest attack of ague to the severest form of remittent fever, are classed together, and in it the admissions and deaths from diarrhœa and dysentery are included under the heading. Diseases of the Digestive System.

These forms were printed and circulated by the Quarter Master General, but the Surgeon General, Her Majesty's Forces, to whom I had forwarded them before submission to the Quarter Master General, and who had expressed his assent to their introduction, considered, after they were circulated, that their preparation would involve much trouble on medical officers, and he proposed to leave out entirely the form having reference to admissions from barracks, and to have all the forms prepared not by corps, *i.e.*, by bodies of men occupying each set of lines, but by stations, thus entirely doing away with the value of the returns, which would be so much waste paper as far as tracing disease to its cause was concerned.

The Quarter Master General referred the matter to a committee and it has been arranged that I am to be supplied from each station hospital with copies of cases of enteric fever, and monthly with a copy of the admission and discharge book which, with the addition of 2 columns showing the number of the barrack from which each man is admitted and whether from an upper or lower floor, will give me the information I require, if I am supplied coincidently by officers commanding with the average strength of the men who have occupied the barrack during each month.

30. The Deputy Sanitary Commissioners have each and all done good work during the past year.

Dr. Parker, Deputy Sanitary Commissioner, Northern Deccan Registration District, was during the hot weather and rains employed in investigating into the cholera outbreaks at Násik, Ahmednagar and Pandharpur. He made special inspections of 14 towns and villages during the year and notices in his annual report among other matters that out of 168 villages visited in the Ahmednagar and Násik Collectorates in 68 or 62·96 per cent. omissions in the registration of births and deaths were detected. In Shevgaon Táluka in 16 out of 19 villages or 84·21 per cent. 85 births and 25 deaths had not been registered, and he points out that the attention paid to the registration of vital statistics by village officers is insufficient. He proposes that the kulkarnis and pátels should be punished

whenever carelessness in this respect was proved against them, and he also suggests that the vital statistics for at least 5 years be always available at each village for inspection and comparison with the current year's results, which will be extremely valuable for the future guidance of the district officers.

31. Dr. Channer, Deputy Sanitary Commissioner, Southern Deccan Registration District, has sent in reports on the towns noted in the margin. His suggestions, many of which excellent as they are in themselves, cannot for the most part be carried out for want of funds. This great difficulty meets us at every turn. Sanitary measures of course must involve expenditure, and until an especial rate for sanitary improvement is levied on towns I fear there cannot be much progress. Dr. Channer says:—"In some villages of Native States in this district very strict orders and regulations have been made. Prickly pear is cut down and areas marked out for natural purposes." I too was much struck in my late tour with the very marked difference between the sanitary condition of the villages in British and those in Native territory. It was remarked to me: "Oh we have in Native States a great deal more 'hookum,' much less law and no Accountant General." Allowing that this is so; still I cannot help thinking that those measures which are absolutely essential for the public health can and ought to be carried out in villages in British territory as well as in Native States. I was especially impressed with the great amount of good work that was being done in Kolhápur. The sanitary condition of which city has been vastly improved since I reported on it in 1876. Among other measures a good and plentiful supply of water has been provided. The city walls have been pulled down. Dhobis' ghâts have been erected, and there is under the enlightened rule of the present Regent H. H. Appa Saheb and the Political Agent Colonel Reeves some hope of a drainage and sewerage scheme being carried out. In fact it almost seems as if we must look to Native States to set the example of actually carrying out sanitary works. There is a good deal of talk about sanitary work in some of our towns, but very little is done; for example, the question of providing the city of Poona with a sewerage scheme has not advanced during the year beyond the region of discussion; nothing has been done or is likely to be done, I fear, until some one will overcome the almost insuperable apathy of the Native gentlemen who are the representatives of municipal administration in that city.

Bágalkot.
Guledgudd.
Tarkod.
Hubli.
Bankápur.
Shiggaon.
Saundatti
Belgaum.
Mayni.
Kurar.
Pátan.

32. Dr. Clarkson, Deputy Sanitary Commissioner, Konkan Registration District, also submitted during the year reports on the towns he inspected. Among other places he visited Panvel, Uran and Alibág. Regarding Panvel he points out that a pure and abundant water-supply is the great want, and that it should, if possible, be brought from a distance. There is a great scarcity of water during the hot weather; all tanks but one dry up, and that one almost does so, and all are liable to contamination. Among other sanitary measures he particularly recommended the cleansing of the Visrole Tank and its surroundings, the closure of a Jewish burial ground near it, also that bunds should be made to keep out the high tide, that cutchra should not be thrown in the present place on the west, and he drew attention to the indifferent way the private latrines were looked after. It will be remembered that the death-rate from cholera in Panvel was the enormously high one of 30 per 1,000. Uran was found in an equally filthy condition. Dr. Clarkson pointed out that the state of the public latrines was very bad, and that the drinking water which is chiefly obtained from a large tank which is filled from water from the hills cannot escape being fouled. He suggested that the tank itself should be bunded all round and that the washing of clothes and dipping of gharras be prevented.

33. These towns have lately come under the jurisdiction of Mr. Crawford, who was good enough to forward me a copy of his letter to the Collector and District Magistrate of Kolába on their unsatisfactory condition, from which I make the following extract:—

"Panvel is bad enough! A population of 10,241, with a municipal income of Rs. 6,000, or a taxation of 9 annas per head per annum! No water-supply! A dog-hole for a dispen-

sary! And the town half scavenged! This on the line of a most important communication with Bombay!

But Uran is much worse—Population 10,149.

Municipal income fallen from Rs. 6,000 to Rs. 1,677 or 3 annas per head per annum.

No water-supply except a foul tank, and the condition of the town most filthy! Scavenging now neglected for want of money!

From the position of both these towns with reference to the populous city of Bombay I feel my own responsibility very keenly, and I shall enforce to the utmost, and advise Government to enforce, if need be, all the bludgeon clauses as they are termed in the Municipal Act. In the meantime I have asked the Sanitary Commissioner to send his Deputy to report on the present sanitary condition of these two towns, and to advise what is needed merely for their maintenance in a decently clean condition."

Mr. Crawford was not aware, when he wrote the above letter, that the Deputy Sanitary Commissioner had shortly before his visit inspected these towns, and had brought their state to the notice of the Collector.

34. There can be no doubt that the insanitary condition, not only of these, but of all the towns and villages in the immediate neighbourhood of Bombay, is a matter which must cause grave anxiety to the municipal authorities of that city.

I am strongly of opinion that special measures are necessary to ensure the sanitation of all villages and towns in the island of Sálsette as far as the Vehár and Tulsi lakes and their gathering grounds. Cholera has, on more than one occasion, broken out at Kurla, whence it has spread to Bombay. Its sanitary condition is well described by Dr. Clarkson in a former part of this report, in his account of the outbreak there in 1883. The necessity for additional measures being taken at Bándra are also apparent, for its sanitary condition is very bad.

It is useless to expect that the Local Funds in the Thána Collectorate will be able to bear any additional expenditure for inspection work, and the serious question arises—whether anything can be done to improve matters, or whether they must be allowed to remain in the unsatisfactory state they are now? It seems to me that Kurla, Bándra, and the villages around Vehár and Tulsi lakes, might be formed into a suburban municipality, and a sharp inspector ought to be able to superintend all within its limits. If this cannot be done, could not Kurla and Bándra be included within the limits of the City of Bombay? If neither of these schemes can be carried out, I think, at all events the municipality might perhaps be induced to maintain an inspector, who should be appointed especially to visit and report on all towns and villages in the island of Salsette within a distance of 6 miles from the island of Bombay; whilst he might also most usefully inspect such towns as Thána, Kalyán, Panvel, Uran, Alíbág, and the villages along the Kolába side of the harbour, for their sanitation is a matter of the most extreme importance as from their frequent communication with this city they may be regarded as suburbs of Bombay.

I suggest that the municipality of Bombay should be invited to provide for the inspector's salary, because it would be hopeless to expect that the Local Funds of Thána or Kolába would pay for an inspector, whose services were, it would be said, required mainly for the protection of the city of Bombay.

35. Dr. Colah, the Deputy Sanitary Commissioner, Eastern Gujarát Registration District, inspected the towns of Dholka and Parántíj, and made several valuable suggestions for their improvement. In Parántíj the most urgent want is a pure water-supply, as the inhabitants draw their drinking water from wells situated within the town, and as there are many pit-privies it must be contaminated. During the months of August, September, and October a severe epidemic of cholera passed over Gujarát, and Dr. F. F. MacCartie, then acting as Deputy Sanitary Commissioner, visited Ahmedabad City, Nádiád, and Dakor towns, as well as the city of Surat, and gave much valuable assistance to the local authorities. He also superintended the sanitary arrangements at the fair held at Dákor in September, the successful management of which was officially acknowledged by Government.

36. Dr. Peacocke, Acting Deputy Sanitary Commissioner, Sind Registration District, has written a most suggestive report of the work he has done during the year. He calls attention in it to the extreme prevalence of cases of eye affections among children, and considers that 50 per cent. of the children he saw during his tour were suffering from conjunctivitis. He says:

"A few important sanitary works have been completed during the year. Perhaps none more so than the Karáchi water-works. So far it has proved a great blessing to the people and appears to fulfil every requirement. The water is good and the supply abundant. Since its introduction, however, the need for a new drainage scheme in the town has become more apparent, and it is to be hoped that the Commissioners will see their way to providing a system somewhat on the Sukkur plan. I may as well say a few words on this work. Sukkur is built on some low ground between limestone hills and the west bank of the River Indus. The old drainage was very defective, a new design has been therefore carried out or I should say partly carried out. The principle is simple; a large central under-ground drain runs through the lower and most central parts of the city; into this tributary drains carry the water from the higher levels from surface drains running along the sides of the street. It is these surface drains which have yet to be completed. Those few I saw work admirably. They are small, semi-circular and made of Portland cement and with the road-ways well raised in the centre they are, and will be, equal to the work they are intended to perform. These drains run first into a trap where all the solid debris is caught, the liquid only finding its way into the under-ground drains. These traps are frequently cleaned, so cannot be a source of much inconvenience or danger. The liquid is finally received into covered reservoirs from which, as necessity requires, it is pumped by two powerful engines into the river, when the river is too high to admit of the water flowing through a trap on the river side leading from the reservoirs to the river. By means of these drains all waste water from wells, &c., finds its way readily to the reservoirs where it either runs off or is pumped away. The town can consequently be kept dry and clean even after considerable rain. But as I have stated, the surface drains are not yet finished. It is, however, desirable that they should be completed in order that the full benefit may be derived. In many of the leading streets the old rectangular stone-faced drains still remain. These from their irregular surface and bad levels can only prove receptacles for refuse and dirt. They are useless as a means of draining the town. A portion of the old covered central drain has not been broken up and it is not difficult to fancy its condition from its imperfect construction and faulty levels. In my report on Sukkur I mentioned a new water scheme. This I am informed by the municipal engineer would not be a costly or difficult work. The pumps at present used to drain the town could also be used to raise water from the river to such a level that it could, after settling and filtration in tanks, be distributed to the entire town. Such a scheme would prove most valuable in Sukkur where the supply is at present chiefly derived from the river, the water of which is loaded with debris and can hardly be whole-some in that condition. The wells too situated as they are in the midst of a thickly popular-ed town, with the old and defective drains in existence, cannot be good or free from contamination. In my reports on Shikárpur and Rohri I have sketched their defects and pointed out what remedial measures appeared to me most desirable. It only remains for me to speak generally of the smaller towns and villages. With few exceptions, notably Lárkhána, much could be done to improve their sanitary condition. The wells in many instances require repairs, new parapet walls and raised brick or stone platforms, also better arrangements for the carrying off of waste water. In many the water forms into dirty black pools too near the wells and soakage most probably occurs in many instances. Cattle and stable litter is stored too near the houses of the people and should be removed to a greater distance where practicable. With these exceptions the towns, considering the difficulties and defects which naturally exist, are for the most part fairly clean and neat. I should perhaps before concluding this report say a few words about Hyderabad. A drainage scheme has, the municipal secretary informed me, been under consideration for some time. The town, built as it is on a high level, is admirably adapted for drainage at a trifling cost, and since the new water-supply has been introduced its provision becomes a question of importance."

37. Dr. Tully, the Acting Superintendent of Vaccination, Western Gujarát Circle, besides doing excellent work, as related in a former section as regards vaccination, has never failed to take every opportunity of giving advice to the officials of the various Native States in Káthiáwár regarding the necessity for the introduction of sanitary reform into their towns and villages. He particularly brings to notice the great assistance he has received in his work from all the Political officers and the following gentlemen:—The Diván and Mr. Chotátál of Junághád, Mr. Cooverji Coyáji of Dhárangadra, the Kárbháries of Rájkot, Wadhwan, Limbdi, and the Nyáyádhisti of Vánkáner.

38. The Superintendent of Vaccination, Presidency Circle, Dr. Ananta Chundroba, has, as usual, done excellent service and has spared no effort to maintain the efficiency of the Department in Bombay.

39. I have also the pleasure of bringing to the notice of Government the names of the undermentioned Inspectors of Sanitation and Vaccination as deserving of especial commendation for the zeal, energy and discretion with which they have conducted their duties during the past year :—

Name.	Grade.	District.
Mr. Trimbak A'nant	... 1st Class	... Poona.
„ Kissonsing Doulatsing	... 2nd „	... Násik.
„ Bálcrishna Rájárám	... 1st „	... Kaládgi.
„ Trimbak Chintáman	... 3rd „	... Belgaum.
„ Mulla Ameroodin	... 2nd „	... Broach.
„ Rahmonkhán Isabkhán	... 3rd „	... Karáchi.

Dr. Clarkson refrains from submitting the names of any inspector as deserving of especial commendation as there has been a falling off of work in his district.

It will be in the recollection of Government that I brought the name of Mr. Trimbak A'nant to especial notice last year in the hopes that some honorary distinction might be conferred on him. This gentleman has been in the service of Government for 31 years, during which long period he has never been a day off duty. His excellent conduct has been testified to by every officer under whom he has served, and to his tact the successful introduction of vaccination into parts of the Poona District is in a great measure owing. Although Government was not able then to give effect to my proposal, I would still hope that some honorary distinction may be conferred on him, as it will not only be extremely gratifying to this old and excellent servant of Government, but it will tend materially to raise the status of the Inspectors throughout the Department if they are able to look forward to the attainment of an honorary title after long and meritorious service.

Dr. Tully has submitted the name of Mr. Sirdarmiya Nanamiya, 2nd class Assistant Superintendent of Vaccination in Káthiáwár, as deserving of especial commendation.

40. I must notice that the Deputy Sanitary Commissioner, Northern Deccan Registration District, remarks : "I am unable to say how far my suggestions for improving the sanitary condition of the towns and villages visited have been acted on as I have not been so advised by the local authorities." Dr. Channer also pointed out, during the year, the necessity of keeping Deputy Sanitary Commissioners informed of the steps or action taken upon the suggestions for the sanitary improvements of any towns they may inspect. I reported the matter to Government, and pointed out that it is important that this information should be forthcoming, and that it is always strongly insisted upon by the Army Sanitary Commission. My letter was referred to the Commissioner, Southern Division, who reported that "the Collector should always acknowledge the Deputy Sanitary Commissioner's reports intimating, whenever necessary, his own views regarding the suggestions made for sanitary improvements. It is rarely possible to take immediate steps to carry out the Deputy Sanitary Commissioner's suggestions, but when any special action on an important point is taken the fact might be communicated to the Deputy Sanitary Commissioner by the Collector and President." Government expressed its concurrence in Mr. Crawford's views.

41. I trust that the above very brief review of the work performed by the Deputy Sanitary Commissioners will show Government that as regards sanitation as well as regards vaccination these officers and their subordinates have carried out their duties during the year in a satisfactory manner, but, as pointed out in my annual report as Acting Sanitary Commissioner in 1876, I am of opinion as the population in their charge is so vast, and the areas under their supervision so enormous, that it is simply impossible for them to visit more than a fraction of the towns and villages in their districts.

My predecessor, Mr. Lumsdaine, in his annual report for 1879, sketched out a perfect scheme. He said : "Indeed, to have a thoroughly effective organisation, there should be one Health Officer for each Collectorate, indentified with its area and

its people, as are the Revenue officers. Within that area he should be conversant with its physical geography, its communications and resources, its peculiarities of climate and rainfall, its water-supply, its special and incidental diseases, its staple and other foods, its system of agriculture, its products, and the general condition of its people. He would be the real Civil Surgeon, as much a part and parcel of the district as the Collector, working with and for him, and, if needs, be travelling with him." I cannot write more strongly, but I am convinced that these are the true lines to work upon, and that we should get a great deal more work done by the constant association of the Health Officer of the district, with the chief civil officer of each Collectorate, who would naturally take more interest in the representations made by one of his own officers.

A commencement in this direction has been made during the year by Government having directed in Government Resolution, General Department, No. 214, dated 22nd January, that the Civil Surgeons should visit twice a year all dispensaries, municipalities and towns of 5,000 or more inhabitants within a circle which would not involve an absence of more than 3 days from the head-quarter station, and that it shall also be the duty of the Civil Surgeon to visit any part of his district in which an unusual outbreak of disease occurs. With the exception of an interesting report by Surgeon Henderson, the Civil Surgeon of Kánara, on an outbreak of fever at Haliyál and the surrounding villages, I have had no official intimation of the Civil Surgeons having visited any of these places, as their reports, if they have made any, have not been forwarded to me. I would suggest that as regards their sanitary duties the Civil Surgeons should be considered members of the Sanitary Department, as it is desirable that the sanitary advice given to the Collector and Presidents of Municipalities should be uniform and not, as might be the case, opposed to the advice of the members of the Sanitary Department.

42. In the Punjáb the Civil Surgeon in each district not only inspects all dispensaries in it but is the Health Officer of his zilláh. He is brought into constant communication with every village in the Collectorate and compiles in his office the vital statistics of all towns and villages in it, which he afterwards submits to the Sanitary Commissioner. He is therefore at all times cognisant of the progress of disease in it and is in a position to offer at once such advice to the Collector as may appear to be necessary. In Madras the Punjáb system has also been lately introduced, and this procedure is in my opinion far in advance of that now obtaining in the Bombay Presidency; for, however zealous the Deputy Sanitary Commissioners may be, they have not now the opportunity of knowing the progress of disease as promptly as is essential if effective measures are to be taken to arrest its progress. Government has, I am glad to say, sanctioned the compilation of the vital statistics of each Registration District in the office of each Deputy Sanitary Commissioner, and this is to come into force from the 1st July of this year, and no doubt this is a distinct advance, but in my opinion the districts in the charge of each Deputy Sanitary Commissioner comprise too extended an area for them efficiently to supervise the progress of disease.

43. I have to thank the Commissioners and the Collectors in each Division for the cordial support they have given to the officers of the Sanitary Department during the year. It is only, as Mr. Crawford pointed out, by the Presidents of Municipalities and the Deputy Sanitary Commissioners working together cordially that sanitary improvements can be effected. The execution of sanitary work in the districts is carried out under the orders of the Collectors and Assistant Collectors, and in travelling through the country no one can fail to be struck with the many evidences of the anxiety evinced by these officers to do all that is possible with the means at their disposal for the welfare of the people committed to their charge. If as much as we could wish has not been done, this is not the fault of the civil administrators of the country whose powers of doing good are seriously curtailed by want of funds. Still when I contrast the state of the towns as they are now with the conditions I remember in some of them 30 years ago, I see that a marvellous progress has been made. The people are, it may be slowly, but they are gradually becoming awakened to the importance of sanitary measures and especially in respect to the benefits conferred by

vaccination; for in parts of the country where comparatively speaking a few years ago strong opposition was met with, the people now recognise the value of vaccination and bring their children willingly to be operated upon.

44. In conclusion, I may remark that although the year has been one in which there has been an unusually heavy death-rate, yet the prospects of real sanitary reform being introduced are most encouraging as Government has, in many important points, indicated its determination to initiate measures, which cannot fail to produce a lasting improvement on the public health of this Presidency.

T. G. HEWLETT,
Deputy Surgeon-General,
Sanitary Commissioner.

APPENDIX I.

Memorandum by Mr. Ranchodlál Chotálál, Chairman of the Municipal Commissioners at Ahmedabad.

I think the most important duty of the Municipality is to look after the public health.

2. The condition of public health can be judged by the amount of sickness and the rate of mortality.

3. The following figures are extracted from the published reports of the municipal administration of the Bombay Presidency for the years 1880-81 and 1881-82 :—

Name of Town.	Death-rate in 1880-81 per 1,000 of Population.	Death-rate in 1881-82 per 1,000 of Population.
Ahmedabad ...	44	54
Kaira ...	34	35
Godhra ...	22	18
Broach ...	17	18
Surat ...	23	39
Thána ...	10	20
Alibág ...	20	20

Thus it will be seen that Ahmedabad unfortunately shows the heaviest rate of mortality in the Northern Division of the Presidency.

4. It appears that the death-rate of Bombay is about 27·87 and that of Calcutta 30, while Poona does not lose more than 25 per thousand of population.

5. The total number of deaths in Ahmedabad in the year 1881-82 was 6,664, and if the death-rate could have been reduced to what is prevailing in some of the above-mentioned places, about 3,000 lives would have been saved.

6. With Government Resolution dated 15th September 1883 we have received the Memorandum of the Army Sanitary Commission, dated 15th June 1883, in the 25th and 26th paras. of which certain observations are made regarding Ahmedabad, which are worth serious consideration. It is shown therein that the death-rate of this city in 1881 was 55·57 per thousand, and the five previous years' average was no less than 57·75, while the death-rate of Bombay in 1881 was 27·87 and that of Calcutta was 30.

7. The death-rates from fever are compared as follows :—

	Fever Deaths per 1,000.
Ahmedabad	35·65
Cawnpore	33·96
Bombay	8·29
Calcutta	8·60

8. The Army Sanitary Commission very appropriately wish to inquire,—

"1stly, what are the causes of the high death-rates in Ahmedábad; 2ndly, as the "present works have not lowered the rate to those of much more populous cities, could any "change in the procedure effect this object, and if not, why not?"

These are most important questions deserving the serious attention of every well-wisher of this city and more particularly of those gentlemen who in their capacity of Municipal Commissioners are responsible for the sanitary condition of the city.

10. I think it would be said that the death register of Ahmedabad is very perfect, while that of other places may not be sufficiently accurate. There may

be some truth about the imperfectness of the death registers of other places, but I do not think that any Municipality would be so neglectful as to allow a large number of deaths to remain unregistered, and there are many places where the rate is half of that of Ahmedabad.

11. Under these circumstances it strikes me that there must be some radical defects in the sanitary condition of this city to cause such heavy mortality, and therefore it behoves the Municipality to find out the causes and remedy the same.

12. In my humble opinion the principal causes of this heavy mortality are the following :—

1. Want of proper drainage for the house sewerage and proper disposal thereof, as well as of other filth from the city.

2. Want of supply of pure water.

3. Overcrowded state of the city.

13. I would beg to submit a few observations on each of these subjects. First in importance is drainage.

14. It appears that about $\frac{3}{4}$rds of the deaths are attributed to fever, and we should therefore try to find out whether there are any special causes to favour the prevalence and attacks of fever in this city.

15. Government have been pleased to send with their Resolution No. 3276, dated 8th September 1883, to the Chairmen of all the City Municipalities a valuable treatise called "The Suggestions by the Army Sanitary Commission in regard to Sanitary Works and Measures." In the 2nd paragraph of this book it is recorded that "among all classes in India a *single* attack of malarial fever predisposes to subsequent attacks, often resulting in *fatal* organic diseases."

16. At page 5 it is further stated that "the direct production of malarial fevers of various types is the *most obvious result* of want of drainage."

17. It is strongly urged in these suggestions that the surface and subsoil should not be allowed to remain soft or sloppy, and the sanitary works should "aim at producing a *dry* and *wholesome* subsoil, a clean surface, and a pure atmosphere around and within houses."

18. Now let us see how we are situated in Ahmedabad. We have no system of drainage at all; our rain water finds its way towards the river by natural water-courses, and for the house sewage-water some of the houses have got cesspits called 'khálcooas' attached to them. These pits are dug close to the house to the depth of 15 or 20 feet, and are so constructed as to allow all the sewage-water thrown therein to be absorbed through the bottom and sides in the surrounding subsoil and thus, where the cesspits are arched over to the depth of 5 feet from the surface ground, the surface is apparently clean and free from any bad smell. The subsoil of Ahmedabad being porous the khálcooa water easily finds its way to the water-bearing stratum which is within a few feet of the bottom of the khálcooas. This khálcooa system fouls the water of all the wells in the city and makes it unfit for drinking purposes. It however keeps the surface clean, although the subsoil is far from being wholesome.

19. It would here be mentioned that there are thousands of houses in the city where no provision of any kind is made for the removal of the house sewage. They have no cesspits of any kind and the people residing in such houses must throw the house sewage in front of their houses to allow it to be soaked in by the ground, and as many houses are situated in narrow lanes, not exceeding 5 or 6 feet in width, and as the houses are high, the sun's rays would not reach the soaking ground for more than an hour or two in the day time. It is therefore easy to imagine that great dampness and malaria must prevail in such locality.

20. One of the best proofs to show that the subsoil of this city is unwholesome is that we see everywhere in the walls of all houses in the city for a few feet from the ground marks of decay in the bricks and chunam or clay as remarked at page 5 of the "Suggestions." This is produced from some noxious

gases emanating from the ground. This mark on the wall is called "loona" by the natives and is the evident proof of the unwholesome state of the subsoil. The noxious gas which makes its appearance on the walls must be emanating from the whole area of the ground, thereby fouling the atmosphere inhaled by the people.

21. To remedy this state of things we must improve the drainage of the city.

22. The best way to meet the requirement would be to have an underground drainage for the house sewage. The present system of removing the night-soil need not be interfered with. The sewage water should be removed to a distance from the city and should be pumped up for irrigating land.

23. The other alternative would be to compel every householder to construct a cesspit or khálcooa sufficiently deep so as to leave about 5 or 6 feet of subsoil from the surface ground quite dry and wholesome. By this method the water of the wells would be seriously polluted and would be rendered more injurious for any domestic use, and therefore it would be necessary to have abundant supply of good water from other sources, such as river, tanks or rain.

24. Regarding these two systems of drainage the opinions of competent sanitary officers may be solicited. In my humble opinion the former, viz., the underground surface drainage, if properly constructed and carried out, would be more efficacious and desirable, and therefore survey plans and estimates for the same should be ordered by competent persons, and in the meantime persons who have not got khálcooas should be compelled to cart away their house sewage outside the city walls.

25. The next point for the improvement of the conservancy is the removal of the night-soil depôts from their present positions to a place in the south-east direction of the city. The Jamalpur Depôt is to the windward of the city and during the greater part of the year the wind blows from that direction. The other depôt at Sháhpur is between the city and the Cantonment, and the wind from it blows throughout the year either towards the camp or the city. Besides it is close to the river and during the rains some of the filth is likely to find its way into the river, the water of which is used for drinking purposes by the city people. We have a proposal under consideration to remove both these depôts to a point some miles off in the south-east direction from which side the wind rarely blows. It is desirable to lay a light railway to carry all the night-soil as well as the whole of the garbage of the city to the place by the railway. If this idea is carried out, the conservancy of the city and suburbs will be greatly improved. A few more public privies and urinaries are also required and a more vigilant and effective sanitary inspection in the city and its neighbourhood is desirable.

26. The second subject of improvement is the water-supply.

27. All the spring-water in the neighbourhood of Ahmedabad is fresh and potable, and the well water of the city would have been suitable had it not been polluted by the khálcooa system above alluded to. If all the khálcooas be stopped, it is possible that the water of the wells would in the course of time be so improved as to render it fit for drinking purposes.

28. Ahmedabad is fortunate to have a stream of river (Sábarmati) running close to it throughout the year. This river water, which is largely used by the people, is contaminated in its long course of hundreds of miles, but I think if we could make an effective arrangement for settling and filtering the water it might greatly improve. I was given to understand when at Calcutta that the water of the Hooghly river which was very objectionable some years ago is now made perfectly good by efficient filtration.

29. We have got a very large number, say about 8,000, of under-ground reservoirs called 'Tankas' attached to houses in which the rain water is stored by the people; and if the people could be induced to clean these reservoirs from time to time and make some arrangement for ventilation, this water would be the most suitable. The water from these 'Tánkás' was analysed and was found to be superior to the river or well water.

30. We have got a magnificent tank, called Kankaria, close to the city. Its area is about 72 acres, and its average depth is about 10 feet, so its capacity to hold water is about 31,363,200 cubic feet or 196,020,000 gallons. I think it is desirable that we should take advantage of this large tank and use it as a settling tank from which the water might be drawn and supplied in the city after proper filtration. It has very correctly been directed in the suggestions of the Army Sanitary Commission above alluded to that no tank be allowed to remain near a town unless the same be required for drinking purposes. Stagnant water is injurious to the health and therefore it is desirable that the Kankaria water should be kept in motion by utilizing it for some purpose.

31. With a large river like Sábarmati running by the side of the city, with a tank like Kankaria which must have cost lákhs and lákhs of rupees for its construction, and with the existence of good potable spring water in the wells in this locality Ahmedabad should be considered not in want of an abundant supply of water. It is not the quantity but the quality of the water which requires to be improved, and I hope with due attention the desired object can be attained.

32. The third cause of the high mortality is the overcrowded state of the city. One of the causes why the rate of mortality in large cities and towns is higher than in the rural districts is the density of the population. In this respect I am afraid Ahmedabad is worse situated than many large cities.

33. I gather from the *Bombay Gazette* of 10th November 1883, that the average population of Bombay and London per acre is 52 and 49 persons; while in Ahmedabad I find a population of more than 115,000 is packed up in an area of about 1,308 acres, which gives an average of about 88 persons per acre. In certain populous parts of the city, such as Khadia and Kaloopur, the density of the population is 134 and 170 persons per acre respectively.

34. The following figures extracted from the municipal administration and census reports will show more clearly than what I can describe how the density of population affects the rates of mortality :—

Name of the Town.	Density of Population per Acre, as per Census of 1881.	Death-rate per 1,000 of Population in 1881.
Ahmedabad...	88	55
Kaira	70	35
Surat	57	39
Bombay	52	27
Broach	34	18
Poona	31	25
Alibág	16	20
Thána	3	20

35. It is not easy to remedy this evil, but I would make the following suggestions :—

1*st.*—The evils and dangers arising from the overcrowded state should be explained to the people by small tracts and lectures.

2*nd.*—Government and the Municipality should adopt such measures as would induce the people to build houses outside the city and settle there.

3*rd.*—In the already overcrowded parts of the city no more land should be sold by Government or the Municipality for building purposes.

4*th.*—New spaces and new thoroughfares should be opened whenever practicable.

36. The following valuable practicable hints given at page 70 of the "Suggestions" by the Army Sanitary Commission are worthy of serious consideration by the Municipality :—

"In large cities and towns in India employing their own engineers and officers of health, the foundation of sanitary improvement must be laid in works of domestic sewerage and drainage, in water-supply brought from a distance, in surface levelling, paving and cleansing, and in surface drainage. These, together with opening up new thoroughfares, tree planting and improved house construction where sufficient funds are available, will improve the general health and mitigate or prevent the outbreak of epidemic disease in all the large groups of population. They are not only the most effectual measures which can be adopted for these objects, but for large dense populations they are in the end the cheapest."

37. In conclusion, I beg most respectfully but earnestly to invite the attention of all the Municipal Commissioners and citizens of Ahmedabad to the subject-matter of this memorandum. Here is a subject involving the question of saving the lives of *thousands* of our fellow citizens. It is proved beyond doubt that the *towns* and cities *less* populous as well as *more* populous than ours show a great deal less death-rate than ours. If our death-rate were the same as Broach (a less populous town) in 1881, we would have lost only 2,218 instead of 6,654 persons, thus saving 4,436 lives. If we could have secured the same rate as Bombay and Poona, we would have saved about 3,300 or 3,600 lives respectively.

38. This is not a subject to be lightly treated. There is a heavy responsibility on the shoulders of somebody for the annual sacrifice of so many lives. I know many native gentlemen have great faith in the Doctrine of Fate and they would content themselves by saying that the fate only decides who is to die and it cannot be diverted. But such doctrines are not safe to be relied upon. The experience has proved that by following the principles laid down by the sanitary science the death-rate can be reduced. We see from the memorandum of the Royal Sanitary Commission recently received with Government Resolution dated 24th October 1883, that by the application of the sanitary improvements the death-rate of London, which was more than 70 per 1,000 in the seventeenth century is now reduced to its one-third, viz., about 22 or 23: even in Bombay there has been great reduction in the death-rate by sanitary improvements.

39. From 1848 to 1864 (a period of 17 years) the total deaths of Bombay was 36,154, while during the other period of 17 years since 1865 when the supply of good water was commenced the total deaths from cholera were only 11,026, showing an enormous difference of about 25,000. This must be attributed to purer water and other sanitary improvements, as drainage, &c.

40. With such facts before us and having been favoured with most valuable suggestions from the highest sanitary authorities, the Municipality as well as the intelligent citizens of Ahmedabad are bound to adopt the measures which are pronounced on scientific principles as sure to save thousands of lives per annum. The question of *funds* will, I think, be in the way, but when the importance of the subject is well *understood* I hope this difficulty will soon be removed. We should not grudge any *expense* where the question involves the saving of so many human lives.

41. By recapitulating the different ideas alluded to in this memorandum the following suggestions are submitted for the consideration of our worthy President and the Municipal Commissioners:—

1*st.*—To have a drainage system for the removal of house sewerage as recommended by the Army Sanitary Commission, in supersession to the present khálcooa system.

2*nd.*—Until the system of drainage as above suggested be adopted some arrangement should be made to carry away the house sewerage of the people who have no khálcooas attached to their houses and consequently throw their filthy water in the streets.

3*rd.*—To provide more public privies and urinaries.

4*th.*—To have stricter sanitary inspection and to use more disinfecting stuff.

5*th.*—To remove the depôts for the deposit of the night-soil and the town sweepings from their present positions to a distance of about 2 miles to the south-east of the city.

6*th.*—To select at once the site for the new depôts.

7*th.*—To lay as soon as possible a light railway or tramway, which should cost about Rs. 5,000 per mile from the south-east side of the city to the new depôt and extend the railway system as more funds be available.

8*th.*—To fill up the hollow places near the city walls where the water stagnates. The task of filling up these spaces as well as small ponds such as Kantoria on the way to Kankaria tank should be undertaken by the Municipality, and Government should be pleased to concede the right of occupancy of such reclaimed land to the Municipality.

9*th.*—Before adopting any very costly system of water-supply, we should ascertain to what extent the water from the Sábarmati river can be improved by settling and efficient filtration. It would be cheaper to pump the river water near the city than to bring water from a long distance.

10*th.*—We should try whether we can use with advantage the Kankaria water. On sanitary grounds it is advisable that the Kankaria water should be in motion.

11*th.*—In the neighbourhood of Ahmedabad the underground main spring of water runs at the depth of 63 or 78 feet. We should try to sink a well to this depth duly protected, by concreting and plastering, from any side drainage which is polluted by the present khálcooa system. The water from such a well be good for drinking purposes.

12*th.*—The owners of the underground reservoirs of rain water should be advised to clean them from time to time.

13*th.*—The evil arising from the overcrowded state of the city should be explained to the people by small tracts and lectures.

14*th.*—Measures should be adopted by Government and the Municipality to induce and tempt the people to reside outside the city.

15*th.*—In the densely populated part of the city no more land should be sold for building purposes.

16*th.*—New thoroughfares and spaces should be opened in the thickly populated part of the city so as to improve ventilation.

17*th.*—We have got tolerably good number of dispensaries for out-door patients, but there is a want of suitable hospital accommodation for those poor but middle class people who may be confined to bed by serious sickness. They cannot afford to pay for competent medical attendance and would be unwilling, through caste prejudices and honest pride, to go and sleep in a compartment occupied by low class people. I am afraid a good many people of such a position die through want of proper treatment. They are either left without any medical treatment at all, or what is worse, become the victims of bad treatment by some quacks. To prevent this I think some suitable accommodation should be made in the hospitals or that competent medical men be induced to visit them gratis.

42. I am afraid I have not been able to do full justice to this most important subject, but have tried to put my ideas in this memorandum for the consideration of our worthy President and the general body of the Commissioners, who I trust will kindly bestow such attention as the importance of the subject deserves.

(Signed) RANCHODLA'L CHOTA'LA'L.

8*th December* 1883.

APPENDICES.

s 1430—1 ap.

GENERAL POPULATION AND VITAL STATISTICS.

ANNUAL FORM No. I.—BIRTHS *registered in the* DISTRICTS *of the* BOMBAY PRESIDENCY *during the year* 1883.

1	2	3	4			5			6	7	8
No.	DISTRICTS.	Population according to Census of 1881.	NUMBER OF BIRTHS REGISTERED.			RATIO OF BIRTHS PER 1,000 OF POPULATION.			Number of Males born to every 100 Females born.	Excess of Births over Deaths per 1,000 of Population.	Excess of Births over Deaths per 1,000 of Population.
			Male.	Female.	Total.	Male.	Female.	Total.			
	Northern Deccan Division.										
1	Khándesh	1,737,521	20,856	19,021	39,876	16·56	15·37	32·23	109·64	...	4·15
2	Násik	781,396	11,589	11,054	24,714	16·04	14·21	30·90	107·77	...	2·82
3	Ahmednagar	1,131,228	14,750	13,821	28,571	12·63	12·46	25·08	106·72	...	0·08
4	Poona	909,321	13,529	13,175	26,704	15·02	13·96	28·94	111·16	...	0·94
5	Sholápur	582,467	10,079	9,905	20,024	13·21	12·69	25·42	107·29	6·21	...
	Southern Deccan Division.										
6	Sátára	1,561,316	20,900	19,747	40,797	19·76	18·68	38·93	106·28	15·39	...
7	Belgaum	964,614	17,876	17,240	35,078	20·05	19·95	40·00	109·47	19·27	...
8	Dhárwár	881,903	15,917	15,027	30,977	20·56	19·48	40·04	104·77	19·35	...
9	Kaládgi	628,493	11,399	11,037	22,436	17·95	17·39	35·14	103·28	12·66	...
	Konkan Division.										
10	Kolába	421,840	7,008	6,735	13,803	16·75	15·97	32·72	104·04	6·21	...
11	Ratnágiri	907,009	10,049	9,417	20,976	10·56	9·45	20·03	111·69	3·15	...
12	Kánara	281,849	4,202	4,004	8,206	13·77	13·09	26·86	106·72	3·02	...
13	Bombay City	773,196	7,774	7,138	14,912	10·05	9·26	19·31	108·61	...	10·77
14	Thána	903,549	13,667	12,976	26,643	15·04	14·38	29·52	105·22	2·60	...
	Gujarat Division.										
15	Surat	614,198	10,980	10,634	21,610	17·83	17·24	35·15	102·41	8·74	...
16	Broach	326,053	5,703	5,305	10,908	17·45	15·91	33·36	110·65	9·43	...
17	Kaira	604,800	11,539	13,039	28,968	19·08	16·95	36·03	113·91	10·96	...
18	Panch Mahals	355,479	5,420	4,963	10,383	15·24	13·96	29·20	109·01	9·12	...
19	Ahmedabad	650,224	14,597	13,650	28,247	19·10	14·74	31·85	113·99	7·88	...
	Sind Division.										
20	Karáchi	478,698	4,926	4,078	9,005	10·29	8·52	18·81	120·76	3·85	...
21	Hyderabad	774,624	6,943	5,699	12,642	8·96	7·72	15·92	130·98	1·45	...
22	Thar and Párkar	203,343	2,787	2,511	5,298	13·68	12·35	26·03	110·99	9·13	...
23	Shikárpur	502,966	5,781	7,078	13,861	10·29	9·39	19·69	134·85	2·33	...
24	Upper Sind Frontier	124,161	1,305	897	2,197	10·47	7·72	17·69	144·93	8·50	...
	Total for the Presidency	16,464,414	262,006	239,835	501,801	15·91	14·59	30·50	109·23	4·97	...

ANNUAL FORM No. II.—DEATHS *registered in the* DISTRICTS *of the* BOMBAY PRESIDENCY *during the year* 1883.

1	2	3	4	5			6	7			8		
No.	DISTRICTS.	Area in Square Miles.	Average Population per Square Mile.	NUMBER OF DEATHS REGISTERED.			Number of Males died to every 100 Deaths of Females.	RATIO OF DEATHS PER 1,000 OF POPULATION.			MEAN RATIO OF DEATHS PER 1,000 DURING PREVIOUS FIVE YEARS.		
				Male.	Female.	Total.		Male.	Female.	Total.	Male.	Female.	Total.
	Northern Deccan Division.												
1	Khándesh	9,944	194·42	27,083	24,849	51,932	109·02	42·83	41·07	41·97	39·25	37·94	74·15
2	Násik	3,960	197·31	19,997	12,517	32,514	159·78	14·94	13·61	28·60	37·27	29·19	66·35
3	Ahmednagar	6,666	112·49	15,185	13,780	28,965	110·14	29·79	27·04	56·83	23·05	22·75	45·71
4	Poona	5,348	168·49	12,306	12,350	25,656	110·23	29·68	27·31	56·99	21·54	19·37	39·92
5	Sholápur	4,623	125·94	8,944	8,114	16,058	109·90	24·00	20·80	39·71	34·99	33·96	67·95
	Southern Deccan Division.												
6	Sátára	4,868	312·06	12,654	11,917	24,571	106·01	22·76	21·53	22·15	20·31	22·53	37·43
7	Belgaum	4,637	195·59	9,959	9,340	19,299	107·08	23·92	21·32	22·73	20·63	20·15	39·49
8	Dhárwár	4,539	194·97	9,662	9,251	18,913	101·78	21·86	21·62	21·74	27·42	26·39	57·01
9	Kaládgi	3,757	110·90	7,949	6,860	15,809	109·00	22·19	20·72	21·46	20·94	19·81	39·17
	Konkan Division.												
10	Kolába	2,611	107·85	5,806	5,275	11,081	111·49	26·05	26·21	26·11	23·04	21·47	43·28
11	Ratnágiri	3,932	244·22	9,035	7,796	16,831	115·89	19·16	14·86	16·98	20·12	17·16	36·45
12	Kánara	1,426	197·51	4,075	3,854	7,929	107·00	27·30	25·83	26·53	19·05	17·60	35·98
13	Bombay City	22	35,145·27	12,185	11,074	23,259	110·03	26·22	25·29	25·68	28·15	29·29	57·44
14	Thána	4,045	214·12	12,442	11,939	24,381	104·20	26·47	27·08	26·82	23·66	21·58	45·24
	Gujarat Division.												
15	Surat	1,663	369·48	9,738	9,586	19,324	101·56	31·79	31·11	31·44	23·61	20·54	44·15
16	Broach	1,458	223·98	4,923	4,593	9,516	107·15	29·31	30·46	29·84	24·27	20·19	44·46
17	Kaira	1,699	359·16	10,808	9,497	20,305	113·77	28·22	24·87	26·51	22·92	20·99	43·91
18	Panch Mahals	1,613	220·28	5,252	4,564	9,816	115·04	27·91	23·99	25·93	26·15	23·39	49·54
19	Ahmedabad	2,321	324·10	10,002	9,344	20,347	117·67	24·91	23·23	23·56	20·49	21·96	42·45
	Sind Division.												
20	Karáchi	14,113	33·91	8,905	3,598	7,173	103·60	14·91	15·08	14·98	13·04	10·12	23·16
21	Hyderabad	9,030	85·87	6,813	4,709	10,922	131·94	15·79	13·06	14·47	13·86	13·66	27·52
22	Thar and Párkar	12,720	15·98	3,237	2,693	5,930	120·41	19·51	17·38	18·46	15·45	16·06	31·51
23	Shikárpur	10,901	46·09	7,504	5,886	13,390	127·48	15·42	13·62	14·52	12·13	11·45	23·58
24	Upper Sind Frontier	1,877	66·16	674	467	1,141	144·33	9·05	6·15	7·59	8·90	7·84	16·74
	Total for the Presidency	125,489	132·85	321,110	199,088	420,198	111·06	26·03	25·02	25·53	24·20	22·40	46·60

N.B.—Those born dead are not included in this or any of the other statements.

Annual Form No. III.—DEATHS *registered in the* Districts *of the* Bombay Presidency *during each month of the year* 1883.

No.	Districts.	January.	February.	March.	April.	May.	June.	July.	August.	September	October.	November	December	Total Deaths registered during the year.	No.
	Northern Deccan Division.														
1	Khandesh	2,868	2,372	2,947	3,803	4,005	6,013	10,007	7,797	5,022	3,756	3,056	2,604	54,272	1
2	Nasik	1,691	1,469	1,388	2,427	3,422	5,447	7,423	5,205	1,748	1,729	1,624	1,663	36,464	2
3	Ahmednagar	1,127	1,082	1,226	1,438	2,378	5,421	6,580	3,753	1,546	1,659	1,716	1,671	31,269	3
4	Poona	1,308	1,403	1,615	1,708	2,011	3,060	5,252	3,418	1,366	1,407	1,623	1,406	25,152	4
5	Sholapur	852	898	925	1,072	1,371	1,324 *	2,945	2,362	1,405	1,218	1,244	1,402	16,938	5
	Southern Deccan Division.														
6	Belgaum	1,846	1,792	1,596	1,825	1,947	1,975	3,226	2,709	2,549	2,228	1,918	2,004	24,591	6
7	Belgaum	1,251	1,264	1,263	1,745	1,595	1,771	2,764	1,904	1,479	1,436	1,541	1,565	19,529	7
8	Dharwar	1,568	1,574	1,499	1,361	1,031 *	1,445	1,736	1,043	1,000	1,469	1,552	2,103	16,150	8
9	Kaladgi	875	790	854	903	1,114	1,115	1,281	1,277	1,405	1,304	1,093	1,902	13,909	9
	Konkan Division.														
10	Kánara	1,056	998	966	864	872	884	949	917	956	957	921	1,102	11,013	10
11	Ratnágiri	1,697	1,591	1,666	1,766	1,389	1,349	1,567	1,558	1,525	1,559	1,477	1,654	18,937	11
12	Kolába	825	749	844	794	797	714	779	799	795	839	853	856	9,715	12
13	Bombay City	1,907	2,162	2,279	2,074	1,914	1,907	2,004	2,404	2,294	1,937	1,842	1,760	25,204	13
14	Thána	2,264	2,119	2,088	2,225	2,259	2,217	2,149	2,197	1,994	1,817	1,720	2,021	24,264	14
	Gujarát Division.														
15	Surat	1,426	1,371	1,382	1,635	1,434	1,163	1,345	1,262	1,320	1,221	2,479	2,676	19,716	15
16	Broach	745	811	773	744	674	663	755	721	749	782	1,018	1,008	9,114	16
17	Kaira	2,715	2,601	1,776	1,705	1,476	1,406	1,339	2,513	1,745	1,321	1,661	1,573	20,393	17
18	Panch Mahals	407	388	409	382	377	393	391	394	396	393	475	461	4,966	18
19	Ahmedabad	1,908	2,060	1,956	1,902	1,926	1,822	1,908	1,908	1,949	1,452	1,908	1,967	20,267	19
	Sind Division.														
20	Karáchi	784	1,005	848	804	615	497	472	388	411	456	641	736	7,157	20
21	Hyderabad	1,824	1,569	1,611	994	772	616	535	685	899	814	995	1,286	12,997	21
22	Thar and Párkar	195	234	211	229	251	191	166	169	178	194	207	254	2,479	22
23	Shikárpur	2,137	1,997	1,993	1,666	870	508	394	397	788	999	1,417	1,784	15,456	23
24	Upper Sind Frontier	100	104	103	79	74	17	76	68	70	59	105	112	1,141	24
	Total for the Presidency	52,142	50,004	53,143	53,291	51,490	53,810	67,393	65,178	51,462	48,078	52,919	54,798	630,198	
	Ratio of deaths per 1,000 in each month	1·95	1·92	2·02	2·09	2·16	2·13	2·67	2·26	1·91	1·71	1·96	2·11	25·35	

Annual Form No. IV.—DEATHS *registered according to Age in the* Districts *of the* Bombay Presidency *during the year* 1883.

No.	Districts.	Under 1 year.		1 year and under 5.		5 and under 10.		10 and under 15.		15 and under 20.		20 and under 30.		30 and under 40.		40 and under 50.		50 and under 60.		60 and upwards.		No.
		Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	
	Northern Deccan Division.																					
1	Khandesh	5,139	4,441	7,854	7,690	3,178	1,914	1,015	850	773	625	1,307	2,256	2,139	1,894	1,096	1,007	1,040	1,496	2,216	2,158	1
2	Nasik	2,812	2,338	3,119	2,811	1,112	959	538	500	461	411	1,116	1,067	1,240	1,151	1,104	788	1,000	780	1,110	1,066	2
3	Ahmednagar	3,467	2,954	2,969	2,716	1,227	1,043	607	508	556	439	1,242	1,021	1,346	1,289	1,227	978	1,197	1,049	1,358	1,251	3
4	Poona	2,206	2,003	2,147	2,000	1,007	979	570	496	572	501	1,126	1,209	1,305	1,255	1,028	914	1,076	1,052	1,201	1,161	4
5	Sholapur	2,670	1,572	1,749	1,135	569	461	548	333	397	377	794	870	932	742	677	541	699	617	858	957	5
	Southern Deccan Division.																					
6	Belgaum	3,129	2,781	2,911	2,588	897	617	372	329	297	293	851	939	917	822	870	726	1,049	1,056	1,454	1,553	6
7	Belgaum	2,206	2,229	1,863	1,805	597	518	329	271	243	218	773	888	843	810	848	677	827	649	1,005	1,162	7
8	Dharwar	2,124	2,074	1,458	1,356	408	360	264	240	213	168	724	1,041	798	734	787	595	695	705	743	815	8
9	Kaladgi	1,362	1,280	1,159	1,109	406	332	211	201	225	175	614	809	638	617	576	446	541	485	552	625	9
	Konkan Division.																					
10	Kánara	1,400	1,310	998	921	194	172	139	138	181	274	736	871	815	695	766	599	818	816	845	808	10
11	Ratnágiri	1,810	1,662	1,778	1,660	1,000	917	517	514	447	453	1,053	1,097	1,127	1,129	1,139	1,037	1,046	1,023	1,044	1,043	11
12	Kolába	730	674	753	664	313	249	161	133	105	137	498	429	513	383	496	358	441	345	452	454	12
13	Bombay	3,490	2,905	1,600	1,514	452	471	339	344	381	373	1,177	1,501	1,296	847	985	598	813	675	801	886	13
14	Thána	2,230	2,040	2,476	2,518	908	804	450	389	430	402	1,279	1,547	1,479	1,240	1,290	893	1,092	967	948	1,009	14
	Gujarát Division.																					
15	Surat	2,192	1,906	2,227	2,049	899	654	341	321	258	245	696	889	705	739	805	595	758	814	1,130	1,375	15
16	Broach	1,142	1,018	930	806	295	278	153	109	152	109	395	435	510	407	525	389	503	373	647	667	16
17	Kaira	2,551	1,459	2,005	1,771	840	698	380	253	295	217	814	1,127	1,053	958	1,061	753	1,027	1,016	1,106	1,311	17
18	Panch Mahals	427	349	343	343	168	134	87	82	91	75	200	243	251	227	257	211	257	225	317	335	18
19	Ahmedabad	2,000	1,784	1,937	1,689	593	412	447	320	455	428	1,333	1,162	1,386	963	1,180	710	998	802	941	969	19
	Sind Division.																					
20	Karáchi	917	836	703	732	163	145	126	74	127	134	296	289	431	424	401	361	418	361	534	572	20
21	Hyderabad	1,144	956	875	808	214	236	146	123	204	146	607	661	654	636	753	727	854	837	896	996	21
22	Thar and Párkar	307	290	176	158	49	34	23	21	25	20	104	107	97	94	107	87	107	93	109	108	22
23	Shikárpur	1,044	1,134	958	960	257	267	180	139	211	244	738	798	1,076	988	1,018	939	997	873	1,026	1,118	23
24	Upper Sind Frontier	120	96	90	77	19	20	8	14	10	10	49	39	59	48	58	48	70	58	75	63	24
	Total for the Presidency	68,555	61,173	61,145	56,477	18,566	14,666	9,054	8,219	7,969	8,078	19,967	23,899	23,325	18,937	20,451	15,894	19,119	15,756	21,370	22,664	
	Ratios per 1,000 living	211·44	189·50	49·78	46·03	30·00	23·70	7·45	6·75	11·12	11·26	19·17	14·96	16·06	13·03	16·46	12·80	20·61	16·99	42·66	54·28	

Annual Form No. V.—DEATHS *registered according to* Classes *in the* Districts *of the* Bombay Presidency *during the year* 1883.

1	2	3					4					5				
No.	Districts.	Population According to Census of 1881.					Number of Deaths registered.					Ratio of Deaths per 1,000 of Population				
		Mahomedans.	Hindus.	Christians.	Other classes.	Total.	Mahomedans.	Hindus.	Christians.	Other classes.	Total.	Mahomedans.	Hindus.	Christians.	Other classes.	Total.
	Northern Deccan Division.															
1	Khándesh	92,797	1,143,523	1,146	255	1,237,721	3,954	47,910	7	81	51,972	42·61	41·90	6·01	31·76	42·00
2	Násik	35,794	742,427	2,644	591	781,456	1,467	24,917	23	277	26,684	40·99	33·54	8·70	46·86	34·14
3	Ahmednagar	39,503	706,485	4,611	956	751,555	1,498	27,106	41	163	28,808	37·91	38·37	8·89	17·05	38·33
4	Poona	42,036	866,811	9,505	2,771	921,123	1,907	34,107	69	281	36,364	45·39	39·47	7·26	101·37	39·48
5	Sholápur	43,967	827,643	623	252	872,485	1,102	15,766	8	32	16,908	25·06	19·22	12·80	126·98	19·38
	Southern Deccan Division.															
6	Sátára	38,713	1,004,436	866	176	1,062,205	764	25,759	9	65	24,891	19·81	25·19	3·69	110·47	23·43
7	Belgaum	60,202	791,377	6,252	123	864,014	1,536	17,132	83	37	19,308	25·46	22·41	13·13	301·02	22·34
8	Dhárwár	105,272	779,975	2,805	54	887,907	2,128	16,712	92	29	19,190	21·16	21·43	32·80	...	21·61
9	Kaládgi	67,006	570,772	825	27	638,490	1,801	12,425	20	60	13,660	19·40	21·77	24·00	...	21·39
	Konkan Division.															
10	Kánara	24,282	382,997	14,103	52	427,340	684	8,986	225	47	11,942	27·25	26·06	22·28	338·92	27·94
11	Ratnágiri	71,051	972,744	3,273	19	997,000	1,998	15,310	27	106	16,931	19·54	16·59	8·24	...	16·98
12	Kolába	17,931	361,391	905	2,172	382,644	351	7,997	0	43	8,330	19·62	21·94	29·51	19·80	21·77
13	Bombay City	148,774	620,009	42,227	87,287	773,195	5,417	15,868	927	1,212	23,424	34·98	20·92	21·96	25·87	30·29
14	Thána	42,291	825,491	32,645	4,311	908,148	1,150	22,130	904	80	24,264	27·13	26·97	24·12	19·00	26·72
	Gujarat Division.															
15	Surat	55,847	845,270	423	22,8	614,190	1,701	17,193	7	254	19,156	31·72	21·53	11·87	27·96	21·76
16	Broach	47,249	268,130	115	3,003	318,903	1,726	7,272	1	226	9,114	25·81	28·35	8·70	24·29	28·57
17	Kaira	72,954	735,563	1,045	139	804,800	1,764	18,454	40	10	20,269	22·27	23·26	38·29	17·48	23·62
18	Panch Mahals	16,060	239,356	44	39	255,479	297	4,901	...	19	4,216	16·56	22·71	...	487·18	22·50
19	Ahmedabad	83,943	709,956	1,529	857	836,285	2,168	17,029	25	45	20,167	25·83	23·29	16·33	50·73	24·12
	Sind Division.															
20	Karáchi ...	260,117	79,810	4,674	1,078	479,680	5,427	1,651	27	68	7,173	12·63	20·69	5·77	63·09	14·95
21	Hyderabad	621,945	132,190	439	59	754,634	8,075	2,801	1	45	10,922	12·98	21·20	2·28	762·70	14·47
22	Thar and Párkar	157,054	41,626	14	4	200,344	1,964	1,265	...	647	3,876	12·50	30·40	...	...	19·34
23	Shikárpur	690,167	162,006	726	79	852,978	9,965	3,454	4	53	13,476	14·43	21·32	5·49	670·73	15·80
24	Upper Sind Frontier	110,981	12,558	799	12	124,185	681	255	...	5	1,141	7·99	14·81	...	416·67	9·19
	Total of the Presidency	3,107,171	13,128,587	178,726	80,939	16,454,414	67,522	355,827	2,600	4,150	430,100	18·51	27·10	19·45	51·77	26·14

N.B.—This and all the other statements refer to Natives only and not to Europeans. Hindus include Hindus of all castes, Jains, Brahmo, or Prárthana Samaj; and aboriginals. In the Deccan, Konkan and Gujarát aboriginals are included among Hindus and in Sind among Mahomedans. "Other classes", include Jews, Parsis, Buddhists and unspecified.

Annual Form No. VI.—DEATHS *registered from* Different Causes *in the* Districts *and* Towns *of the* Bombay Presidency *during the year* 1883.

1	2	3	4	5	6	7	8				9	10	11						
No.	Districts and Towns.	Population according to Census of 1881.	Cholera.	Small-pox.	Fevers.	Bowel Complaints.	Injuries.				All other Causes.	Total Deaths from all Causes.	Ratio of Deaths per 1,000 of Population.						
							Suicide.		Wounding and accidents, by wild beasts.	Total.			Cholera.	Small-pox.	Fevers.	Bowel Complaints.	Injuries.	All other Causes.	From all Causes.
							Male.	Female.											For the Year. / Mean of previous five years.
	A.—DISTRICTS.																		
	Northern Deccan Division.																		
1	Khándesh	1,187,708	10,472	2,108	39,716	6,316	17	15	218	24	274	1,700	50,329	8·78	1·85	33·42	5·32	0·23	1·47	42·37	37·66
2	Násik	726,671	3,728	426	15,819	2,670	7	11	101	15	156	1,824	24,027	5·03	0·59	21·76	3·67	0·18	2·49	33·79	33·03
3	Ahmednagar	704,949	7,142	215	15,176	3,347	8	11	100	19	148	2,458	27,460	10·13	0·30	21·53	4·75	0·26	2·10	38·97	34·26
4	Poona	785,184	3,978	1,201	17,553	4,077	9	11	106	24	150	2,379	29,488	5·06	1·52	22·35	5·19	0·30	3·03	37·55	37·55
5	Sholápur	469,561	2,126	27	9,557	882	7	20	106	9	143	1,290	13,064	4·52	0·05	17·94	1·66	0·29	2·68	26·65	24·23
	Southern Deccan Division.																		
6	Sátára	1,010,969	1,143	356	17,398	1,756	16	18	227	50	341	2,407	23,731	1·13	0·35	17·21	1·73	0·64	2·38	23·69	24·21
7	Belgaum	809,678	458	260	9,156	2,630	21	21	174	36	248	4,139	18,044	0·56	0·44	11·31	4·25	0·31	5·18	22·28	22·40
8	Dhárwár	781,859	1,337	1,024	9,108	2,308	24	21	166	28	239	2,777	17,004	0·64	0·57	12·15	4·29	0·32	3·71	21·68	21·61
9	Kaládgi	621,469	1,002	642	8,290	1,256	15	26	124	30	216	2,158	13,569	1·59	1·02	13·11	1·99	0·24	3·46	21·41	22·19
	Konkan Division.																		
10	Kánara	397,455	..	117	6,139	779	18	16	148	14	189	3,373	10,692	...	0·29	15·43	1·95	0·45	8·24	26·82	31·76
11	Ratnágiri	973,527	91	904	9,220	697	14	18	241	184	709	6,019	16,879	0·09	0·93	9·44	0·65	0·80	6·17	16·93	15·70
12	Kolába	360,469	326	209	5,466	67	5	10	117	73	194	1,979	7,976	0·90	0·51	14·92	0·18	0·42	4·98	21·61	17·85
13	Thána	870,851	1,873	1,067	17,153	206	10	20	394	137	571	3,106	25,344	2·15	1·22	19·70	0·23	0·42	3·42	26·94	27·13
	Gujarat Division.																		
14	Surat	492,138	457	563	11,734	1,781	6	12	148	56	226	606	15,356	0·92	1·08	22·04	3·42	0·46	1·73	31·06	28·15
15	Broach	315,512	14	39	6,151	1,007	3	6	74	20	103	1,051	7,468	0·04	0·14	19·49	3·19	0·32	3·33	23·66	23·57
16	Kaira	797,180	102	3	14,474	2,089	12	17	209	31	319	1,149	18,315	0·13	...	19·63	2·62	0·43	1·56	23·97	22·71
17	Panch Mahals	255,745	16	11	2,849	58	1	4	47	11	63	48	3,095	0·04	0·16	15·06	0·22	0·24	0·25	16·21	16·50
1	Ahmedabad	664,304	72	59	11,405	907	6	11	94	66	176	600	13,685	0·11	0·08	17·16	1·45	0·26	0·89	20·27	20·07
	Sind Division.																		
19	Karáchi ...	410,356	..	123	4,290	159	4	4	219	56	283	603	5,433	...	0·49	10·45	0·38	0·68	1·47	13·26	13·84
20	Hyderabad	709,429	377	377	8,400	76	8	8	396	213	617	947	9,060	...	0·53	11·84	0·11	0·87	1·33	12·68	11·94
21	Thar and Párkar	200,446	..	19	3,537	..	..	..	23	28	101	127	3,836	...	0·09	17·67	0·09	0·50	0·63	18·94	18·74
22	Shikárpur	790,919	..	..	11,211	126	6	6	194	110	316	70	11,732	...	...	14·16	0·15	0·24	0·08	14·83	15·20
23	Upper Sind Frontier	112,826	..	..	944	14	..	..	13	4	17	12	994	...	...	8·36	0·12	0·15	0·13	8·76	9·05
	Total of Districts	14,848,658	36,019	9,753	240,542	30,832	119	306	3,372	1,264	5,161	37,776	367,825	2·27	0·66	16·76	2·13	0·36	2·63	24·94	23·98
	Towns.																		
	B.—TOWNS.																		

ANNUAL FORM No. VI.—DEATHS *registered from* DIFFERENT CAUSES *in the* DISTRICTS *and* TOWNS *of the* BOMBAY PRESIDENCY *during the year* 1883—continued.

No.	Districts and Towns.	Population according to Census of 1881.	Deaths from Cholera.	Deaths from Small-pox.	Deaths from Fevers.	Deaths from Bowel Complaints.	Deaths from Injuries: Suicide: Male.	Suicide: Female.	Accidental: Wounding Accident.	Accidental: Killed by Wild Beasts.	Accidental: Total.	All other causes.	Total Deaths from all causes.	Ratio of Deaths per 1,000 Population: Cholera.	Small-pox.	Fevers.	Bowel Complaints.	Injuries.	All other causes.	From all causes: For the year.	From all causes: Mean period five years.	No.
	R.—TOWNS.																					
	Khándesh District.																					
1	Dhúlia	18,448	107	..	173	18	..	..	3	..	3	46	347	5·81	..	9·42	0·98	0·16	2·49	20·71	19·42	1
2	Nanduribár	8,041	29	2	130	16	..	..	..	..	..	5	182	3·61	2·49	16·17	1·99	0·00	0·62	22·64	20·47	2
3	Chopda	13,052	206	5	290	4	1	1	1	..	3	7	515	15·78	0·38	22·22	0·30	0·07	0·53	39·48	18·90	3
4	Nasirabad	10,343	107	93	260	9	..	..	2	..	2	..	304	10·34	9·00	25·13	0·86	0·19	..	29·39	30·42	4
	Násik District.																					
5	Násik	24,101	426	34	544	139	..	..	5	..	5	330	1,479	17·70	1·41	22·57	5·77	0·21	13·69	61·35	44·99	5
6	Sinnar	17,065	15	54	257	64	..	..	2	1	3	328	669	0·88	3·16	15·06	3·75	0·17	19·21	39·23	37·02	6
7	Deválí Cantonment ..	2,569	19	..	11	2	..	..	..	..	..	4	45	7·40	..	4·28	0·78	..	1·55	17·51	7·31	7
8	Mángaum do. ..	9,185	2	1	69	11	..	..	..	..	..	1	84	0·87	0·11	7·51	1·19	0·00	0·11	9·19	6·02	8
	Ahmednagar District.																					
9	Ahmednagar	32,903	145	121	956	137	1	..	6	..	7	403	1,769	4·41	3·68	29·05	4·16	0·21	12·25	53·76	53·97	9
10	Sangamner	8,790	70	5	131	3	..	..	..	1	1	97	307	8·02	0·56	14·90	0·34	0·11	11·03	34·97	29·74	10
11	Ahmednagar Cantonment	4,569	6	1	85	10	..	1	2	..	3	2	109	1·31	0·22	7·66	0·87	0·66	0·44	23·86	18·62	11
	Poona District.																					
12	Poona City	80,622	189	287	1,866	569	6	2	28	..	37	1,029	3,753	1·90	2·23	10·39	1·48	0·47	16·25	37·71	37·82	12
13	Junnar	10,577	63	..	80	15	..	..	1	..	1	144	310	5·96	..	7·49	1·54	0·19	13·66	29·33	29·09	13
14	Poona Cantonment ..	30,129	9	37	370	73	1	1	6	..	10	186	686	0·30	1·23	7·70	2·42	0·33	6·21	18·20	13·69	14
15	Kirkee do.	7,267	4	5	50	11	..	..	2	..	2	48	120	0·55	0·68	6·84	1·51	0·27	6·61	16·46	11·00	15
	Sholápur District.																					
16	Sholápur	35,890	193	14	1,193	97	2	1	23	..	26	230	2,143	5·66	0·39	34·25	1·67	0·45	5·81	48·77	40·92	16
17	Bársi	26,139	50	12	374	41	..	1	8	..	9	174	659	2·10	0·74	22·76	2·54	0·56	10·79	40·09	30·05	17
18	Pandharpur	16,959	132	2	464	307	2	..	2	3	12	142	1,059	10·94	0·12	38·20	18·15	0·71	8·40	84·52	51·05	18
	Sátára District.																					
19	Sátára	20,979	12	16	289	115	3	2	8	1	14	149	795	0·43	0·48	13·77	5·66	0·43	9·72	34·79	27·89	19
20	Wái	11,870	36	13	121	10	..	..	1	..	1	50	231	2·03	1·09	11·72	1·01	0·08	4·22	21·16	24·39	20
21	Karád	10,714	16	1	152	30	..	..	3	..	3	92	294	1·49	0·09	14·19	2·79	0·28	8·61	27·85	27·44	21
	Belgaum District.																					
22	Belgaum	20,115	..	74	147	39	1	..	11	..	12	103	475	..	3·68	7·30	1·93	0·59	5·12	19·62	19·32	22
23	Gokák	10,397	2	1	86	96	..	2	3	..	5	57	367	0·19	0·10	8·27	9·23	0·48	5·48	23·75	28·24	23
24	Athní	11,186	26	..	179	68	..	..	4	..	4	68	369	2·32	..	16·00	7·96	0·08	7·85	33·96	30·15	24
25	Belgaum Cantonment ..	9,477	..	6	82	13	..	..	..	..	..	15	116	..	0·63	8·65	1·37	0·00	1·67	12·32	13·23	25
	Dhárwár District.																					
26	Dhárwár	27,193	..	18	199	56	4	2	11	1	18	135	425	..	0·66	7·32	2·06	0·73	4·96	15·73	23·26	26
27	Hubli	38,977	..	3	247	236	3	..	6	1	10	203	817	..	0·08	7·92	6·15	0·25	5·20	29·21	26·43	27
28	Gadag Betgeri ..	17,061	..	2	136	93	2	2	2	0	6	141	388	..	0·12	8·00	5·45	0·35	8·26	22·78	19·66	28
29	Kundgol	10,603	..	13	90	52	1	..	1	..	2	72	231	..	1·24	8·51	4·92	0·28	7·13	21·98	19·93	29
	Kolábá District.																					
30	Kolábá	7,994	5	3	85	40	..	1	1	1	3	52	114	0·71	0·43	5·41	3·69	0·43	5·26	16·23	20·60	30
	Kánara District.																					
31	Karwár	13,761	..	2	237	14	..	2	2	..	3	115	371	..	0·15	9·06	1·01	0·72	8·36	19·49	22·60	31
32	Kumta	10,929	1	26	95	9	..	..	1	..	1	121	253	0·09	2·43	8·04	0·82	0·09	11·08	23·06	17·98	32
	Ratnágiri District.																					
33	Vengurla	8,947	..	39	61	36	..	1	4	..	5	136	340	..	4·25	6·70	1·78	0·56	14·52	28·01	26·67	33
34	Ratnágiri	13,616	..	49	112	17	..	..	3	..	3	132	313	..	3·60	8·22	1·24	0·15	10·67	24·73	19·94	34
	Kolába District.																					
35	Alibág	6,376	37	35	60	..	..	..	1	..	1	101	237	5·80	5·49	10·03	..	0·15	15·84	37·31	24·50	35
36	Mahád	6,504	35	9	82	2	1	..	..	1	2	59	194	5·37	1·38	12·60	0·31	0·14	9·07	29·83	27·49	36
	Thána District.																					
37	Thána	14,456	6	26	179	3	2	2	..	1	5	69	286	0·41	1·80	12·38	..	0·35	4·77	19·73	20·73	37
38	Kalyán	12,910	126	4	97	5	1	..	6	..	7	70	305	9·76	0·31	7·51	0·47	0·54	5·42	23·51	20·31	38
39	Panvel	10,351	214	43	65	3	1	2	1	..	4	58	387	20·04	4·12	6·28	0·28	0·28	5·62	36·61	19·27	39
40	Bombay City	773,196	1,014	1,431	5,777	1,760	39	51	363	6	459	12,961	22,420	1·31	1·85	7·47	2·28	0·44	16·76	30·05	27·40	40
	Surat District.																					
41	Surat	109,814	62	302	1,846	76	4	2	19	2	27	846	3,741	0·73	2·75	16·81	0·69	0·24	8·01	34·03	26·44	41
42	Bulsár	13,226	12	9	72	14	1	2	2	1	6	62	320	0·90	0·68	5·43	1·06	0·45	4·68	13·20	13·69	42
	Broach District.																					
43	Broach	37,291	23	101	611	91	4	1	6	..	11	233	1,069	1·96	2·71	16·39	2·44	0·29	5·81	29·61	27·50	43
44	Jambusár	11,479	1	..	151	241	..	..	2	2	14	..	407	0·26	..	13·15	20·98	1·22	..	35·46	30·47	44
	Kaira District.																					
45	Cambay	12,644	61	4	391	56	..	..	5	..	5	2	458	4·82	0·31	30·91	4·42	0·31	0·15	36·92	37·62	45
46	Nadiád	29,304	99	..	934	5	1	1	10	2	15	13	1,066	3·37	..	31·87	0·17	0·06	0·44	36·51	30·21	46
47	Borsad	13,326	1	..	238	1	..	..	3	2	6	..	248	0·75	..	17·86	0·75	..	..	18·61	17·61	47
48	Kapadvanj	14,442	..	9	228	15	1	1	5	..	7	70	423	..	0·62	15·79	1·04	0·35	4·85	29·29	30·69	48

ANNUAL FORM NO. VI.—DEATHS *registered from* DIFFERENT CAUSES *in the* DISTRICTS *and* TOWNS *of the* BOMBAY PRESIDENCY *during the year* 1883—continued.

No.	Districts and Towns.	Population according to Census of 1881.	Cholera.	Small-pox.	Fevers.	Bowel Complaints.	Injuries. Suicide. Males.	Suicide. Females.	Accidental and Violent.	Snake-bite and Killed by Wild Beasts.	Total.	All other Causes.	Total Deaths from all Causes.	Ratio of Deaths per 1,000 of Population. Cholera.	Small-pox.	Fevers.	Bowel Complaints.	Injuries.	All other Causes.	From all Causes. For the year.	From all Causes. Mean of previous five years.	No.
	B—TOWNS—*continued.*																					
	Panch Mahals District.																					
49	Godhra	13,342	..	14	138	..	..	..	3	1	19	5	166	..	1·05	10·12	..	0·75	0·37	12·29	20·56	49
50	Dohad	12,304	13	6	126	13	1	..	3	1	5	12	249	1·43	0·48	10·24	0·89	0·48	0·97	20·24	21·21	50
	Ahmedabad District.																					
51	Ahmedabad	124,767	88	1	2,936	83	1	4	14	2	21	1,902	5,050	0·49	0·01	24·32	0·66	0·17	15·24	40·90	37·87	51
52	Dholka	7,063	11	..	116	27	..	2	..	..	2	..	163	0·74	..	19·77	0·69	0·28	..	23·08	..	52
53	Viramgám	13,900	1	9	319	73	..	..	..	1	1	37	441	0·03	0·47	27·93	2·64	0·13	1·78	32·75	37·80	53
54	Dholka	27,736	..	..	205	72	2	..	3	1	6	30	308	..	..	13·80	4·01	0·24	2·54	20·59	17·46	54
55	Ahmedabad Cantonment ..	8,564	4	..	43	1	..	..	..	..	..	87	135	1·40	..	13·67	0·35	..	30·40	47·22	..	55
	Kaira District.																					
56	Kaira	65,332	..	97	958	98	1	1	25	1	28	650	1,721	..	1·42	12·56	1·26	0·41	9·57	17·23	23·16	56
	Hyderabad District.																					
57	Hyderabad	43,150	..	122	758	19	2	..	14	..	16	256	1,082	..	2·71	17·44	0·42	0·35	7·65	25·07	27·76	57
	Thar and Párkar District.																					
58	Umarkot	3,920	..	..	87	3	..	..	..	..	..	7	97	..	..	30·76	0·71	..	2·49	33·96	39·25	58
	Shikárpur District.																					
59	Shikárpur	47,456	..	4	590	3	1	1	14	..	17	116	726	..	0·09	14·19	0·06	0·03	2·73	17·30	22·16	59
60	Sukkur	27,593	..	..	419	43	1	..	23	..	29	73	564	..	..	19·30	1·87	0·44	2·98	20·59	17·16	60
61	Lárkhána	13,166	..	..	312	..	..	..	8	..	8	92	412	..	..	27·56	..	0·66	8·26	31·32	31·65	61
	Upper Sind Frontier District.																					
62	Jacobábad	11,352	..	..	111	14	..	..	6	..	6	36	157	..	..	9·78	1·23	0·53	2·99	13·83	19·95	62
	Total of Towns ..	2,166,786	3,381	5,473	98,196	4,670	89	79	813	86	1,016	21,063	82,345	1·57	1·74	13·44	2·21	0·39	9·72	29·07	31·71	
	TOTAL for the Presidency ..	10,854,414	27,304	13,484	386,741	21,330	407	329	2,985	1,310	5,029	60,329	470,196	2·51	0·97	16·21	1·94	0·46	5·55	27·63	34·79	

N.B.—Districts A, in this statement do not include the population or deaths of Towns B. In all the other statements "Districts" include "Towns."

ANNUAL FORM NO VII.—DEATHS *registered from* CHOLERA *in the* DISTRICTS *of the* BOMBAY PRESIDENCY *during each month of the year* 1883.

No.	Districts.	Cholera or Registration. No. in each District.	No. from which Deaths from Cholera were reported.	Villages. No. in each District.	No. from which Deaths from Cholera were reported.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total. Male.	Total. Female.	Total. Total.	Ratio of Deaths per 1,000 of Population. Male.	Female.	Total.	Mean Deaths per 1,000 in previous five years.	No.
	Northern Division.																								
1	Ratnágiri	26	26	2,669	764	..	..	..	17	374	1,419	1,372	588	276	34	3	..	3,875	3,241	10,734	4·87	4·08	8·95	1·74	1
2	Malvan	16	16	1,057	1,057	..	..	..	..	1	1,219	1,375	568	276	8	1	..	2,340	2,004	4,344	4·70	4·03	8·73	1·74	2
3	Ahmednagar	14	14	2,327	623	..	..	..	23	719	2,777	2,046	603	252	54	2	..	4,790	3,870	7,660	0·94	0·76	1·70	1·26	3
4	Poona	14	13	2,177	821	4	..	..	2	1,179	6,145	3,262	1,170	545	96	12	..	9,415	7,941	17,356	1·15	0·97	2·12	1·45	4
5	Sholápur	10	10	790	370	..	..	..	..	347	1,261	1,013	450	189	9	1	..	1,481	1,339	2,820	0·79	0·66	1·45	1·01	5
	Southern Division.																								
6	Belgaum	15	14	1,779	149	..	..	..	49	59	239	214	414	219	142	44	4	823	804	1,398	1·17	1·12	1·94	1·82	6
7	Dhárwár	8	8	1,079	84	15	..	..	6	146	80	50	105	38	27	3	2	230	240	470	0·66	0·69	1·35	1·22	7
8	Kolába	4	4	1,072	6	6	..	..	..	1	1	..	..	..	..	..	..	2	5	7	0·01	0·02	0·03	0·03	8
9	Kánara	9	9	1,130	146	..	..	..	2	190	205	139	269	79	69	18	8	549	459	1,008	1·74	1·45	3·19	0·78	9
	Konkan Division.																								
10	Khánara	13	1	1,302	1	..	..	..	..	1	..	..	..	..	..	..	..	1	..	1	0·01	..	0·01	..	10
11	Kolába	10	3	1,302	3	..	..	..	..	2	4	3	70	19	19	6	..	45	46	91	0·06	0·06	0·12	0·03	11
12	Kolába	9	9	1,302	60	..	..	..	..	5	61	26	140	38	17	3	..	190	100	290	0·24	0·13	0·37	0·03	12
13	Bombay City	1	1	1	1	2	1	15	24	224	251	439	183	72	4	2	..	615	469	1,084	0·03	0·02	0·05	0·03	13
14	Thána	14	14	2,005	170	..	..	..	28	604	2,207	2,251	1,485	1,021	450	53	49	3,171	3,197	7,368	1·07	1·08	2·49	0·93	14
	Gujarát Division.																								
15	Surat	10	10	778	79	..	..	..	..	1	47	20	34	377	307	76	272	238	591	0·96	1·04	0·99	1·03	15
16	Broach	7	6	1,000	11	..	..	..	..	..	..	..	6	11	3	6	50	39	39	0·20	0·24	0·44	0·06	16
17	Kaira	11	9	971	57	..	..	..	..	2	23	6	..	..	..	..	..	148	133	281	0·35	0·31	0·66	0·37	17
18	Panch Mahals ..	7	4	672	7	..	..	..	..	..	..	..	..	..	..	..	..	12	10	22	0·14	0·09	0·23	0·43	18
19	Ahmedabad	13	6	832	24	..	..	..	2	1	..	..	..	20	2	..	..	38	43	81	0·17	0·19	0·36	0·04	19
	Sind Division.																								
20	Karáchi	14	..	720	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	0·46	20
21	Hyderabad	13	..	1,103	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	0·56	21
22	Thar and Párkar ..	6	..	73	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	0·03	22
23	Shikárpur	39	..	1,367	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	0·03	23
24	Upper Sind Frontier ..	4	..	142	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	0·01	24
	Total for the Presidency ..	305	178	34,431	3,866	28	1	15	200	3,623	9,887	12,326	6,710	3,226	899	240	146	30,363	18,091	47,454	1·24	1·17	2·41	0·95	

Annual Form No. VIII.—DEATHS *registered from* Small-pox *in the* Districts *of the* Bombay Presidency *during each month of the year* 1883.

No.	Districts.	Number of Districts.	Villages.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.			No. of first Deaths among Children.		Ratio of Deaths per 1,000 of Population.			Mean ratio per 1,000 for previous five years.	No.
		No. in each District.	No. from which Deaths from Small-pox were reported.													Males.	Females.	Total.	Under 1 year.	Under 15 years.	Males.	Females.	Total.		
	Northern Deccan Division.																								
1	Khandesh	28	25	2,600	442	237	404	329	497	202	67	26	22	4	1	1	1	1,186	1,160	2,346	779	1,540	1·97	1·92	1·95	0·08	1
2	Nasik	16	14	1,645	107	7	45	47	229	90	61	50	23	6	4	10	16	256	268	524	240	372	0·62	0·70	0·67	0·07	2
3	Ahmednagar	14	13	1,547	97	32	55	111	93	47	14	9	1	1	1	1	1	367	357	724	158	195	0·21	0·43	0·47	0·05	3
4	Poona	13	11	1,171	800	244	244	328	194	134	64	40	34	19	15	11	19	490	500	1,000	335	675	0·39	1·24	1·26	0·15	4
5	Sholapur	10	7	700	13	3	1	..	6	4	13	2	10	3	1	1	1	46	38	84	30	38	0·09	0·09	0·09	0·03	5
	Southern Deccan Division.																								
6	Belgaum	15	12	1,810	117	10	14	20	63	44	49	13	20	19	15	12	12	160	196	356	71	109	0·25	0·33	0·30	0·15	6
7	Dharwar	11	9	1,072	83	3	14	21	17	25	30	20	32	23	13	14	10	174	210	384	249	349	0·49	0·52	0·51	0·05	7
8	Kaladgi	6	5	1,031	57	2	3	2	3	7	11	7	10	5	2	2	2	53	59	112	43	82	0·19	0·20	0·20	0·02	8
9	Kolhapur	8	8	1,136	87	..	..	7	9	9	16	26	21	63	49	115	159	236	316	552	233	370	0·40	0·56	0·48	0·05	9
	Konkan Division.																								
10	Canara	13	9	1,102	36	3	2	8	11	17	23	10	9	4	17	3	23	80	61	141	14	40	0·09	0·21	0·15	0·05	10
11	Panch Mahals	5	5	1,048	287	12	23	27	100	141	117	62	77	64	47	40	24	435	401	836	111	172	0·32	0·33	0·33	0·05	11
12	Kolaba	7	7	969	97	23	25	34	63	49	36	20	18	10	12	9	15	179	163	342	125	198	0·23	0·28	0·26	0·05	12
13	Bombay City	1	1	..	..	115	278	317	279	99	31	7	3	1	1	1	1	734	697	1,431	344	1,101	0·56	0·56	0·56	0·09	13
14	Thana	14	14	3,091	383	128	211	303	315	189	124	105	66	35	31	27	48	819	850	1,669	526	1,009	0·74	1·04	1·02	0·09	14
	Gujarat Division.																								
15	Surat	10	10	778	125	140	305	454	247	108	66	29	7	17	16	17	2	739	691	1,430	566	946	2·93	2·56	2·18	0·06	15
16	Broach	7	7	1,015	17	3	17	58	..	29	9	1	..	..	..	..	..	59	56	115	61	72	0·39	0·40	0·39	0·05	16
17	Kaira	11	9	972	9	..	..	..	4	2	1	1	..	..	..	..	1	6	7	13	2	11	0·01	0·03	0·02	0·01	17
18	Panch Mahals	7	5	672	7	2	..	..	1	1	0	1	1	..	..	..	..	13	13	26	3	6	0·14	0·10	0·12	0·05	18
19	Ahmedabad	12	7	803	21	7	9	15	9	10	4	..	..	..	1	1	1	39	35	74	24	46	0·09	0·09	0·09	0·09	19
	Sind Division.																								
20	Kaladi	14	11	778	64	19	34	40	54	11	8	11	11	8	5	16	47	109	102	211	35	100	0·05	0·05	0·05	0·15	20
21	Hyderabad	14	14	1,376	109	15	56	62	67	45	54	22	19	10	8	49	61	396	356	752	146	189	0·08	0·08	0·08	0·16	21
22	Thar and Parkar	4	4	771	6	1	5	3	9	4	1	..	..	..	..	..	..	14	10	24	4	7	0·02	0·02	0·02	0·17	22
23	Shikarpur	20	7	1,207	1	..	..	..	..	1	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	0·18	23
24	Upper Sind Frontier	4	4	343	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	0·19	24
	Total for the Presidency	350	313	31,431	2,877	1,039	1,947	2,814	3,238	1,796	939	510	440	332	263	345	1,010	6,806	6,586	13,392	4,544	6,805	0·32	0·33	0·33	0·11	

Annual Form No. IX.—DEATHS *registered from* Fevers *in the* Districts *of the* Bombay Presidency *during each month of the year* 1883.

No.	Districts.	Number of Districts.	Villages.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.			Ratio of Deaths per 1,000 of Population.			Mean ratio per 1,000 for previous five years.	No.
		No. in each District.	No. from which Deaths from Fevers were reported.													Males.	Females.	Total.	Males.	Females.	Total.		
	Northern Deccan Division.																						
1	Khandesh	28	28	2,600	2,101	1,847	1,835	1,906	2,317	2,710	2,732	2,415	2,346	2,256	2,211	2,219	15,847	14,722	30,569	21·00	20·76	20·88	18·71	1
2	Nasik	16	14	1,645	1,001	1,107	1,111	993	1,181	1,261	1,088	1,035	1,004	1,094	1,048	1,009	8,627	7,967	16,594	21·94	19·94	20·72	19·47	2
3	Ahmednagar	14	13	1,547	1,013	1,000	747	844	1,003	1,206	1,041	1,222	1,046	1,121	1,056	1,000	7,475	8,143	15,618	19·20	20·93	20·06	18·63	3
4	Poona	13	13	1,171	1,161	1,000	893	1,051	1,306	1,230	1,235	1,171	1,207	1,095	921	1,136	1,243	7,708	6,912	14,620	19·62	17·71	18·70	17·86	4
5	Sholapur	10	10	700	385	600	530	625	779	930	891	1,023	1,247	1,008	895	970	5,145	5,049	9,200	10,207	10·79	10·38	10·71	10·52	5
	Southern Deccan Division.																						
6	Belgaum	15	12	1,339	1,172	1,202	994	1,273	1,419	1,487	1,439	1,397	1,095	1,077	1,052	1,415	1,009	9,201	8,779	17,980	17·28	16·27	16·76	17·08	6
7	Dharwar	11	9	1,072	1,000	742	661	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	8,000	8,000	16,000	15·25	15·38	15·31	15·42	7
8	Kaladgi	6	5	1,031	1,150	950	690	814	780	782	737	932	920	864	910	1,010	1,023	9,012	8,320	17,332	11·26	10·96	11·11	11·02	8
9	Kolhapur	9	9	1,136	944	1,000	800	800	871	850	781	815	837	725	673	743	1,023	4,661	8,218	12,879	12·76	12·75	12·76	13·05	9
	Konkan Division.																						
10	Canara	13	13	1,102	1,058	930	800	767	756	764	806	846	880	880	917	958	723	2,203	9,083	6,566	15,649	15·76	15·00	15·38	15·45	10
11	Panch Mahals	5	5	1,048	1,000	800	730	807	870	950	937	798	831	800	843	817	719	4,410	9,043	8,208	17,251	7·93	7·87	7·90	7·92	11
12	Kolaba	7	7	969	850	641	552	601	615	619	638	621	598	600	626	629	611	3,744	7,307	6,999	14,306	10·73	10·44	10·58	10·73	12
13	Bombay City	1	1	..	..	587	682	718	660	490	457	384	426	471	394	521	549	3,127	2,696	5,823	2·39	2·05	2·22	2·17	13
14	Thana	14	14	3,091	2,000	1,949	1,671	1,703	1,873	1,957	1,910	1,917	1,857	1,849	1,917	1,859	1,602	9,945	9,051	11,493	19·05	19·58	19·32	19·17	14
	Gujarat Division.																						
15	Surat	10	10	778	743	1,000	1,000	1,000	1,000	994	827	800	912	994	1,022	1,037	1,026	6,731	6,896	13,627	23·56	23·64	23·60	23·71	15
16	Broach	7	7	803	700	642	600	601	622	622	454	454	490	587	627	1,043	670	4,160	3,451	7,611	27·39	24·79	26·09	25·97	16
17	Kaira	11	11	972	580	3,407	1,200	1,450	1,450	1,454	1,500	1,587	1,510	1,540	1,474	1,500	1,315	8,077	7,663	15,740	20·46	20·80	20·63	20·37	17
18	Panch Mahals	7	7	672	500	375	400	450	500	500	500	475	472	500	500	1,344	1,312	4,144	3,832	7,976	14·82	14·82	14·82	14·82	18
19	Ahmedabad	12	12	803	797	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	6,000	6,000	12,000	19·62	17·00	18·31	18·31	19
	Sind Division.																						
20	Karachi	14	14	778	778	977	819	803	780	780	780	780	780	780	780	780	780	4,680	4,680	9,360	10·77	10·77	10·77	10·77	20
21	Hyderabad	14	14	1,376	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	6,000	6,000	12,000	10·08	10·08	10·08	10·08	21
22	Thar and Parkar	4	4	771	370	510	290	400	280	267	103	135	140	191	197	222	1,400	1,365	3,630	12·22	12·22	12·22	12·22	22
23	Shikarpur	20	20	1,207	1,207	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	6,000	6,000	12,000	10·00	10·00	10·00	10·00	23
24	Upper Sind Frontier	4	4	343	343	343	343	343	343	343	343	343	343	343	343	343	343	2,058	2,058	4,116	10·00	10·00	10·00	10·00	24
	Total for the Presidency	350	330	30,439	25,057	25,153	21,149	21,885	23,302	23,911	23,149	22,798	22,500	22,155	22,149	23,747	23,155	140,015	136,209	276,224	16·26	15·96	16·11	15·96	

ANNUAL FORM NO. X.—DEATHS *registered from* BOWEL COMPLAINTS *in the* DISTRICTS *of the* BOMBAY PRESIDENCY *during each month of the year* 1883.

No.	Districts.	Civiles of Residence.	Villages.	Total.			Ratio of Deaths per 1,000 of Population.			No.
		No. in each District.	No. in each District.	Males.	Females.	Total.	Males.	Females.	Total.	
	Northern Deccan Division.									
1	Khándesh	26	26	3,660	1,105	2,765	0·27	0·09	0·18	
2	Nasik	16	16	1,288	377	1,665	0·41	0·09	0·25	
3	Ahmednagar	14	14	1,027	448	1,475	0·23	0·07	0·15	
4	Poona	19	19	1,177	495	1,672	0·31	0·09	0·20	
5	Sholapur	10	10	700	170	870	0·43	0·11	0·28	
	Southern Deccan Division.									
6	Kolába	15	15	1,329	393	1,722	1·06	0·32	0·69	
7	Belgaum	11	11	1,079	749	1,828	0·34	0·23	0·28	
8	Dhárwár	16	16	1,371	654	2,025	0·34	0·16	0·25	
9	Kaládgi	9	9	1,130	393	1,523	0·48	0·16	0·32	
	Konkan Division.									
10	Kánara	13	13	1,102	275	1,377	0·67	0·17	0·42	
11	Ratnágiri	10	10	1,292	297	1,589	0·63	0·14	0·38	
12	Kolába	2	2	960	29	989	0·70	0·17	0·43	
13	Bombay City	1	1	109	155	264	0·18	0·25	0·21	
14	Thána	14	13	2,091	114	2,205	0·39	0·02	0·22	
	Gujarát Division.									
15	Surat	10	10	778	290	1,068	0·63	0·17	0·40	
16	Broach	8	8	661	84	745	0·49	0·06	0·28	
17	Kaira	11	11	1,267	312	1,579	0·39	0·09	0·24	
18	Panch Mahals	7	6	672	43	715	0·36	0·02	0·19	
19	Ahmedabad	12	11	932	156	1,088	0·43	0·07	0·25	
	Sind Division.									
20	Karáchi	14	10	720	57	777	0·35	0·03	0·19	
21	Hyderabad	14	12	1,105	43	1,148	0·14	0·01	0·07	
22	Thar and Párkar	3	3	77	3	80	0·04	0·00	0·02	
23	Shikárpur	20	14	1,967	212	2,179	0·24	0·02	0·13	
24	Upper Sind Frontier	4	3	142	11	153	0·27	0·02	0·15	
	Total for the Presidency	285	264	24,431	6,131	30,562	0·28	0·06	0·16	

No.	Districts.	Villages. No. from which Deaths from Bowel Complaints were reported.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
	Northern Deccan Division.													
1	Khándesh	26	266	265	287	444	364	644	1,113	1,127	533	468	243	267
2	Nasik	16	168	178	148	209	264	309	239	227	206	200	202	189
3	Ahmednagar	14	147	148	99	99	107	135	164	408	456	345	214	195
4	Poona	19	172	177	195	94	107	106	101	139	155	178	228	170
5	Sholapur	10	70	70	170	60	45	81	88	88	85	123	129	140
	Southern Deccan Division.													
6	Kolába	15	115	115	139	85	75	95	159	97	215	203	200	205
7	Belgaum	11	111	111	1,079	749	393	654	377	393	266	403	413	370
8	Dhárwár	16	16	171	654	214	276	257	245	240	265	261	249	239
9	Kaládgi	9	9	1,130	393	84	63	60	52	79	65	123	168	130
	Konkan Division.													
10	Kánara	13	13	1,102	275	70	73	93	64	54	79	80	99	85
11	Ratnágiri	10	10	1,292	297	53	59	67	54	97	89	91	85	96
12	Kolába	2	2	960	29	14	5	6	4	3	7	9	4	3
13	Bombay City	1	1	...	109	155	146	123	157	107	251	264	136	127
14	Thána	14	13	2,091	114	31	24	17	25	20	17	30	39	25
	Gujarát Division.													
15	Surat	10	10	778	290	139	137	143	129	102	143	147	154	154
16	Broach	8	8	661	84	55	56	45	49	56	58	58	59	58
17	Kaira	11	11	1,267	312	176	148	170	173	139	105	171	247	106
18	Panch Mahals	7	6	672	43	3	3	13	6	6	5	6	5	10
19	Ahmedabad	12	11	932	156	105	119	91	94	89	84	99	105	94
	Sind Division.													
20	Karáchi	14	10	720	57	10	13	15	7	10	21	17	12	24
21	Hyderabad	14	12	1,105	43	6	10	15	5	6	5	1	11	13
22	Thar and Párkar	3	3	77	3	...	...	3	...	...	1	1	1	1
23	Shikárpur	20	14	1,967	212	37	17	13	11	13	7	6	19	11
24	Upper Sind Frontier	4	3	142	11	1	6	...	1	5	...	2	2	1
	Total for the Presidency	285	264	24,431	6,131	2,096	2,100	2,311	2,401	2,662	2,990	4,149	4,450	3,274

Statement No. I, showing Particulars of Vaccination in the Bombay Presidency during the year 1883-84.

Number.	Circles and Districts.	Population of Districts according to Census of 1881.	Average Population per Square Mile.	Average Number of Vaccinators employed throughout the Season.	Total number of Persons vaccinated.			Average Number of Persons vaccinated by each Vaccinator.	Primary Vaccinations.				Revaccinations.		Percentage of Successful Cases.		Persons successfully vaccinated per 1,000 of Population.	Average Annual Number of Persons successfully vaccinated during previous five years.		Average Annual Number of Deaths from small-pox during previous five years.	
									Total.	Successful.			Total.	Successful.	Primary.	Revaccination.		Number.	Ratio per 1,000.	Number.	Ratio per 1,000.
										Under 1 year.	Over 1 and under 6 years.	Total of all Ages.									
1	2	3	4	5	6			7	8	9	10	11	12	13	14	15	16	17	18	19	20
	THE NORTHERN DECCAN REGISTRATION DISTRICT.				Males.	Females.	Total.														
	KHANDESH COLLECTORATE—							*Vide*	Statement	No.	III.										
1	Nandurbar Town	6,841	14093·97	...	...	...	...		...	...	...	...	...	...	...	...	...	...	...	10	1·46
2	Dhulia Town	18,449	10023·23	1	452	409	861		861	712	114	836	...	...	97·10	...	45·31	715	38·76	3	0·16
3	Chopda Town, Local Fund ...	13,932	29234·56	1	173	194	367		367	259	105	367	...	...	100·	...	26·34	371	26·63	...	...
4	Nasirabad Town do. ...	10,243	61266·54	1	P. 134 R. 2	151 ...	285 2		287	285	231	35	266	2	2	93·33	100·	28·16	253	24·70	15	1·46
5	In the 22 Rural Circles, Local Fund. ...	1,187,766	119·49	22	P. 17,020 R. 290	16,909 174	33,929 434		1,562	33,938	20,930	11,873	33,129	434	383	97·64	88·25	28·21	32,307	27·20	346	0·29
	Total ...	1,237,231	124·43	25	P. 17,779 R. 292	17,663 174	35,442 436		1,435	35,471	27,132	12,127	34,598	436	385	97·62	88·30	28·28	33,646	27·19	374	0·30
	NÁSIK COLLECTORATE—							*Vide*	Statement	No.	III.										
6	Yeola Town	17,685	80845·71	...	...	...	...		...	...	...	...	...	...	...	...	...	...	...	2	0·11
7	Násik do. { Local Fund. / Municipal }	24,101	48328·85	1	31	32	63		63	63	37	19	58	...	...	92·06	...	2·41	781	32·41	2	0·08
					P. 500 R. 3	528 1	1,028 4		1,028	636	366	1,015	4	2	98·74	50·00	42·20				
8	Devlali Cantonment do. ...	2,969			P. 72 R. 11	53 1	125 12		125	104	20	125	12	12	100·	100·	46·14	99	33·34	...	...
9	Malegaon do. Local Fund...	3,780	...	...	58	48	106		106	104	1	106	...	...	100·	...	28·04	117	30·95	...	...
10	In the 12 Rural Circles, do. ...	732,671	123·36	12	P. 10,087 R. 94	9,760 52	19,847 146		1,666	19,869	12,356	6,758	19,304	146	118	97·26	88·22	26·51	17,344	23·67	40	0·05
	Total ...	781,206	131·52	13	P. 10,748 R. 108	10,421 54	21,169 162		1,641	21,191	13,237	7,164	20,608	162	132	97·35	81·48	26·35	18,341	23·48	44	0·05
	AHMEDNAGAR COLLECTORATE—																				
11	Ahmednagar Town	32,903	75693·63	1	P. 479 R. 2	468 1	947 3		1,031	947	726	197	930	3	3	98·20	100·	28·36	1,198	36·41	20	0·61
	Do. Cantonment ...	4,589			P. 41 R. 5	34 1	75 6			75	53	18	74	6	5	98·67	83·33	17·22	101	22·01	...	...
12	Sangamner Town, Local Fund.	8,796	14814·32	...	P. 165 R. 5	151 ...	316 5		321	316	262	50	316	5	5	100·	100·	36·49	267	30·35	...	...
13	In the 11 Rural Circles. { Local Fund. / Municipal }	704,940	105·76	12	P. 13,029 R. 141	13,025 89	26,054 230		2,190	26,982	18,664	7,156	25,937	231	138	99·55	60·06	36·99	19,669	27·90	23	0·03
14		...	...	...	132	149	281		281	217	60	279	...	...	99·29	...	0·40				
	Total ...	751,228	112·69	13	P. 13,846 R. 103	13,827 91	27,673 244		2,147	27,701	19,922	7,461	27,536	245	151	99·50	61·88	36·68	21,235	28·27	43	0·06

Statement No. I, showing Particulars of Vaccination, &c.—*continued.*

Number.	Circles and Districts.	Population of Districts according to Census of 1881.	Average Population per Square Mile	Average Number of Vaccinators employed throughout the Season.	Total Number of Persons vaccinated.			Average Number of Persons vaccinated by each Vaccinator.	Primary Vaccinations.				Revaccinations.		Percentage of Successful Cases.		Persons successfully vaccinated per 1,000 of Population.	Average Annual Number of Persons successfully vaccinated during previous five years.		Average Annual Number of Deaths from Small-pox during previous five years.	
									Total.	Successful.			Total.	Successful.	Primary.	Revaccination.		Number.	Ratio per 1,000.	Number.	Ratio per 1,000.
										Under 1 year.	Over 1 and under 6 years.	Total of all ages.									
1	2	3	4	5	6			7	8	9	10	11	12	13	14	15	16	17	18	19	20
	THE NORTHERN DECCAN REGISTRATION DISTRICT—*continued.*				Males.	Females.	Total.														
	POONA COLLECTORATE—																				
15	Poona City	99,622	19924·40	2	P. 1,538 R. 384	1,311 43	2,849 427	1,636	2,849	1,713	930	2,672	427	146	93·79	34·19	28·29	2,568	25·78	63	0·63
16	Poona and Kirkee Cantonments. Cantonment.	37,381	4255·40	1	P. 887 R. 184	578 68	1,465 252	1,717	1,465	1,247	199	1,449	252	131	98·91	51·98	42·27	1,258	33·65	13	0·35
	Municipal.				2	1	3	3	3	...	3	3	...	...	100·	...	0·08				
17	Junnar Town	10,373	28402·36	...	.....	...	...	*Vide*	Statement No. III.				...	...	...	...	...	...	...	...	...
18	In the 8 Rural Circles; Local Fund.	753,245	141·23	14	P. 10,416 R. 68	10,041 31	20,457 99	1,448	20,462	10,008	9,236	19,644	99	83	96·03	83·84	26·19	14,544	19·31	176	0·23
	Total	900,621	168·41	17	P. 12,843 R. 636	11,931 142	24,774 778	1,503	24,779	12,968	10,368	23,768	778	360	93·94	46·27	26·79	18,370	20·40	252	0·28
	SHOLAPUR COLLECTORATE—																				
19	Sholapur Town	59,890	44987·79	1	P. 1,016 R. 174	993 13	2,009 187	2,196	2,009	1,212	697	2,001	187	154	99·60	82·35	35·98	1,873	31·27	...	...
20	Barsi do.	16,126	43092·6	1	P. 356 R. 3	333	689 3	692	689	355	312	675	3	3	97·97	100·	42·04	940	58·29	...	...
21	Pandharpur Town. Municipal	16,910	32299·69	1	P. 568 R. 8	581	1,149 8	1,157	1,150	968	163	1,137	8	6	98·96	75·00	67·60	1,434	84·80	...	...
	Local Fund				P. 20 R. 1	12	32 1	33	36	21	4	25	1	1	78·12	100·	1·54				
22	In the 7 Rural Circles. Local Fund	489,561	108·33	9	P. 9,898 R. 155	9,802 22	19,700 177	2,209	19,704	12,218	7,091	19,325	177	132	99·11	74·58	40·15	11,488	23·47	2	...
	Municipal				P. 1,088 R. 61	1,123 ...	2,211 61	2,272	2,211	1,591	571	2,177	61	17	98·46	27·87	44·82				
	Total	582,487	128·83	12	P. 12,916 R. 402	12,844 35	25,760 437	2,184	25,760	16,365	8,888	25,540	437	313	99·03	71·62	44·38	15,735	27·01	2	...
	NATIVE STATES—																				
23	Dang Territory	60,270	15·79	...	.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
24	Akalkot	58,040	116·54	1	P. 1,153 R. 251	932 15	2,107 266	2,373	2,114	1,068	771	2,002	266	232	90·02	87·22	38·49	1,575	27·14	...	...
25	Mudaimb	13,773	154·75	...	P. 224 R. 2	264	488 2	490	488	324	160	486	2	2	99·59	100·	35·43	267	19·39	...	...

	TOTALS BY ESTABLISHMENTS IN NORTHERN DECCAN REGISTRATION DISTRICT.																			
	Cantonment	37,381	4255·40	1	P 887 R 184	578 68	1,465 252	1,717	1,465	1,247	199	1,449	252	131	98·91	51·98	42·27	1,248	33·39	13	0·35
	Municipal	275,559	27261·98	8	P 6,244 R 551	5,883 60	12,227 711	1,617	12,228	8,287	3,451	11,924	711	348	97·32	48·66	44·54	10,736	38·96	87	0·32
	Local Fund	3,939,833	1121·60	71	P 61,031 R 726	60,123 368	121,156 1,094	1,722	121,248	73,090	42,308	118,677	1,095	862	97·95	78·79	39·34	95,076	24·12	615	0·16
	Native State	132,083	29·84	1	P 1,379 R 253	1,216 15	2,595 268	2,863	2,602	1,393	931	2,488	268	234	95·88	87·31	39·61	2,109	15·97	...	...
	Grand Total ...	4,384,856	119·01	81	P 69,541 R 1,814	67,902 511	137,443 2,325	1,726	137,543	86,016	46,889	134,538	2,326	1,575	97·88	67·74	31·04	109,169	24·90	715	0·16
	THE SOUTHERN DECCAN REGISTRATION DISTRICT.																			
	SATARA COLLECTORATE—																			
26	Karad Town	10,778	29352·85	...	P 41 R 18	39 ...	80 18	98	80	50	28	78	18	18	97·50	100·	8·91	...	...	...	...
27	Wái do.	11,676	5838·	...	.....	...	*Vide*	Statement	No. III.	...	...	...	...	...	...	...	...	...	...	...
28	Satára do.	29,028	35319·24	1	P 499 R 144	467 16	966 160	1,126	966	602	363	966	*160	160	100·	100·	38·79	965	33·24	1	0·03
29	In the 12 Rural Circles, Local Fund.	1,010,868	202·80	14	P 18,366 R 358	17,641 76	36,007 434	2,003	36,021	17,739	15,847	34,042	434	321	94·54	73·96	33·99	26,108	25·83	18	0·02
	Total ...	1,062,350	212·98	15	P 18,906 R 520	18,147 92	37,053 612	2,511	37,067	18,391	16,238	35,086	612	499	94·69	61·54	33·50	27,073	25·48	19	0·02
	BELGAUM COLLECTORATE—																			
30	Gokak Town	10,307	26385·92	...	.....	...	*Vide*	Statement	No. III.	...	...	...	...	...	...	...	...	...	...	...
31	Athni do.	11,186	12195·98	...	.....	...	...	Do.	...	...	...	...	...	...	...	...	...	...	1	0·09
32	Belgaum Town	23,115	51188·93	1	P 673 R 145 P 145 R 151	633 80 123 63	1,306 225 268 214	2,013	1,306 269	495 117	628 97	1,182 234	225 215	105 89	90·51 87·31	46·67 41·59	55·68 33·71	831 117	35·95 12·21	1	0·04
33	Do. Cantonment ...	9,582	...	...	.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
34	In the 7 Rural Circles, Local Fund.	809,824	173·97	11	P 13,267 R 872	13,006 432	26,273 1,304	2,507	26,289	9,327	15,127	25,539	1,304	988	97·21	73·77	32·76	16,714	20·64	26	0·03
	Total ...	864,014	185·54	12	P 14,085 R 1,168	13,762 575	27,847 1,743	2,466	27,864	9,939	15,852	26,955	1,744	1,182	96·79	67·81	32·57	17,662	20·44	28	0·03
	DHÁRWÁR COLLECTORATE—																			
35	Dhárwár Town	27,191	23676·32	1	P 909 R 35	745 30	1,654 65	1,719	1,654	645	834	1,601	65	59	96·79	90·77	61·05	1,000	36·78	1	0·04
36	Hubli do.	36,677	31090·44	1	P 1,041 R 34	1,043 27	2,084 61	2,145	2,089	1,022	885	1,956	66	29	93·86	43·94	54·12	957	26·09	...	...
37	Gadag Bettigeri Town... ...	17,001	61127·19	1	P 788 R 2	741 3	1,529 5	1,534	1,529	892	510	1,432	5	3	93·66	60·00	84·41	854	50·23	...	...
38	Ranebennur do. Local Fund.	10,202	27666·44	1	P 522 R 23	496 34	1,018 57	1,075	1,032	479	480	991	57	45	97·35	78·95	101·55	550	53·91	...	...
39	In the 14 Rural Circles do...	791,836	174·73	14	P 11,280 R 440	10,730 104	22,039 544	1,613	22,066	8,742	11,003	21,381	544	368	97·01	67·65	27·47	13,206	17·06	19	0·02
	Total ...	882,907	194·79	18	P 14,549 R 534	13,775 198	28,324 732	1,614	28,370	11,781	14,312	27,361	737	504	96·60	68·85	31·56	16,867	19·10	20	0·02

Statement No. I. showing particulars of Vaccination, &c.—*continued.*

Number.	Circles and Districts.	Population of Districts according to Census of 1881.	Average Population per square Mile.	Average Number of Vaccinators employed throughout the season.	Total Number of Persons Vaccinated.			Average Number of Persons vaccinated by each Vaccinator.	Primary Vaccinations.				Revaccinations.		Percentage of Successful Cases.		Persons successfully vaccinated per 1,000 of Population.	Average Annual Number of Persons successfully vaccinated during previous five years.		Average Annual Number of Deaths from Small-pox during previous five years.	
									Total.	Successful.			Total.	Successful.	Primary.	Revaccination.		Number.	Ratio per 1,000.	Number.	Ratio per 1,000.
										Under 1 year.	Over 1 and under 6 years.	Total of all Ages.									
1	2	3	4	5	6			7	8	9	10	11	12	13	14	15	16	17	18	19	20
	THE SOUTHERN DECCAN REGISTRATION DISTRICT—*continued.*				Males.	Females.	Total.														
	KALA'DGI COLLECTORATE—																				
40	Bágalkot Town	12,850	42174·36	1	P 811 R 39	871 9	1,682 48	1,730	1,684	685	793	1,499	48	13	89·12	27·08	117·67	625	48·64	...	...
41	Kaládgi do. Local Fund ...				P 153 R 37	171 11	324 48	372	325	115	179	301	48	34	92·90	70·83	47·69	89	12·67	...	...
42	Do. Cantonment do. ...	7,024	59938·13	...																	
43	In the 8 Rural Circles do. ...	618,619	107·46	8	P 9,289 R 290	9,225 70	18,514 360	2,339	18,519	8,345	8,997	17,893	360	300	96·65	83·33	29·41	10,893	17·61	6	0·01
	Total ...	638,493	110·90	9	P 10,253 R 366	10,267 90	20,520 456	2,331	20,528	9,145	9,969	19,693	456	347	95·97	76·10	31·39	11,607	18·18	6	0·01
44	KOLHÁPUR STATES	800,189	284·16	11	P 13,994 R 470	13,260 121	27,254 591	2,551	27,269	11,796	15,138	26,025	591	428	95·49	72·42	33·06	15,636	19·54	...	...
	SOUTHERN MARÁTHA JÁGHI'RS—																				
45	Sángli	196,832	219·68	4	P 2,213 R 133	1,997 42	4,210 174	1,091	4,220	1,433	2,467	3,772	174	112	89·60	64·37	19·73	2,726	13·85	...	...
46	Jamkhandi	83,917	170·56	2	P 2,071 R 21	1,978 3	4,049 24	2,036	4,051	2,133	1,740	3,992	24	19	98·59	79·17	47·80	2,352	28·03	...	...
47	Miraj (Senior)	55,959	222·94	2	P 975 R 25	912 8	1,887 33	960	1,914	607	1,094	1,783	33	32	94·49	96·97	32·43	1,233	22·03	...	...
48	Do. (Junior)	30,541	146·83	1	P 253 R 6	214 2	467 8	487	479	209	261	473	8	3	98·75	37·50	15·29	505	16·54	...	...
49	Kurundvád (Elder)	35,187	193·33	1	P 440 R 7	390 1	830 8	838	832	250	512	777	8	8	93·61	100·	22·31	602	17·11	...	...
50	Do. (Younger)	25,811	226·41	1	P 592 R 43	629 11	1,221 56	1,277	1,221	371	709	1,080	56	41	88·45	73·21	43·43	447	17·32	...	...
51	Mudhol	52,163	144·10	1	P 1,001 R 24	915 5	1,916 29	1,945	1,916	1,054	747	1,882	29	18	98·23	62·07	36·42	1,095	20·99	...	...
52	Ramdurg	29,570	211·21	1	P 703 R 21	565 2	1,268 23	1,291	1,268	460	584	1,147	23	11	90·46	47·83	39·16	637	21·54	...	...
	Total ...	509,980	192·81	13	P 8,260 R 281	7,600 74	15,860 355	1,247	15,901	6,517	7,814	14,906	355	244	93·98	68·73	29·77	9,597	18·82	...	...
	SÁTÁRA JÁGHI'RS—																				
53	Pant Pratinidhi...	58,916	131·80	1	P 729 R 7	649 1	1,378 8	1,386	1,417	414	845	1,277	8	6	92·67	75·00	21·78	707	12·00	...	...
54	Pant Sachéo	145,876	97·84	2	P 1,309 R 1	1,286 4	2,595 5	1,300	2,595	980	1,492	2,592	5	5	99·88	100·	17·80	2,530	17·34	...	...
55	Phaltan	58,402	147·11	1	P 778 R 5	804 ...	1,582 5	1,587	1,582	714	795	1,555	5	4	98·29	80·00	26·69	1,061	18·17	...	...
56	Jath	55,493	56·68	1	P 835 R 5	814 ...	1,649 5	1,654	1,649	798	678	1,521	5	5	92·24	100·	27·50	1,078	19·43	...	...
	Total ...	318,687	96·16	5	P 3,651 R 18	3,553 5	7,204 23	1,445	7,243	2,906	3,811	6,945	23	20	96·	[illegible]·26	21·86	5,376	16·87	...	...

57	Sawantvadi State	14,763	210·90	1	P. 497 R. 19	432 7	929 26	1,012	988	318	591	942	26	22	95·51	84·62	65·30	615	40·98	...	...
	TOTALS BY ESTABLISHMENTS IN SOUTHERN DECCAN REGISTRATION DISTRICT.																			
	Municipal	155,444	37,148·68	6	P. 4,907 R. 568	4,602 228	9,509 796	1,727	9,077	4,509	4,138	8,948	801	476	93·51	59·80	60·63	5,553	35·72	2	0·01
	Local Fund	3,292,320	165·18	48	P. 52,886 R. 2,020	51,289 787	104,175 2,787	2,228	104,232	44,747	52,233	1,00,147	2,747	2,056	96·13	74·85	51·94	67,656	29·55	71	0·02
	Native State	1,643,619	185·85	20	P. 26,402 R. 788	24,902 207	51,304 995	1,743	51,399	21,357	25,354	48,818	995	714	95·15	71·76	50·14	31,224	19·00	...	...
	Grand Total ...	5,091,383	176·90	84	P. 84,195 R. 3,376	80,853 1,162	165,048 4,538	2,019	165,228	70,793	81,725	1,57,913	4,544	3,246	95·68	71·53	51·65	104,433	29·51	73	0·01
	THE KONKAN REGISTRATION DISTRICT.																			
	KANARA COLLECTORATE—																			
58	Karwar Town	13,761	1,169·44	1	P. 337 R. 194	265 41	602 235	837	602	133	248	475	235	112	78·90	47·66	42·65	101	7·34	...	...
59	Kumta do. Local Fund ...	10,629	1,445·82	1	P. 206 R. 45	195 29	401 74	475	404	52	228	203	74	18	75·56	24·32	30·20	63	59·27	...	...
60	In the 11 Rural Circles, Local Fund.	397,450	102·13	11	P. 5,805 R. 522	5,328 205	11,223 727	1,086	11,271	1,930	5,903	10,246	727	503	91·29	69·46	27·05	9,186	23·01	18	0·05
	Total ...	421,840	107·87	13	P. 6,438 R. 761	5,788 275	12,226 1,036	1,020	12,277	2,115	6,379	11,024	1,036	635	90·17	61·29	27·64	9,350	22·16	18	0·04
	RATNAGIRI COLLECTORATE—																			
61	Vengurla Town, Local Fund ...	8,947	836,829·00	...	.....	...	...	*Vide Statement No. III.*									153	17·10	...	...
62	Ratnagiri do. do. ...	12,616	337,960·00	...	P. 190 R. 42	201 3	391 45	436	398	130	198	373	45	27	95·40	60·00	31·71	173	13·71	1	0·08
63	In the 8 Rural Circles, Local Fund.	975,327	248·73	13	P. 13,037 R. 581	12,277 422	25,314 1,003	2,024	23,389	11,567	12,104	24,976	1,003	790	98·66	78·76	26·41	23,423	24·02	47	0·05
	Total ...	997,090	254·22	13	P. 13,227 R. 623	12,478 425	25,705 1,048	2,058	23,787	11,697	12,302	25,349	1,048	817	98·02	77·96	26·24	23,758	23·83	48	0·05
	KOLABA COLLECTORATE—																			
64	Mahad Town, Local Fund ...	6,804	15,892·55	...	.....	...	...	*Vide Statement No. III.*												1	0·15
65	Alibag do. do. ...	6,376	10,544·29	...	.....	...	...	Ibn.										54	8·47	6	0·94
66	In the 6 Rural Circles, Local Fund.	368,469	246·41	6	P. 3,993 R. 278	3,960 232	7,953 510	1,410	7,978	4,832	2,887	7,841	512	276	98·59	54·12	22·63	8,634	23·43	72	0·20
	Total ...	381,649	253·04	6	P. 3,993 R. 278	3,960 232	7,953 510	1,410	7,978	4,832	2,887	7,841	512	276	98·59	54·12	21·27	8,688	22·76	79	0·21
	THANA COLLECTORATE—																			
67	Panvel Town	10,351	3,450·33	...	P. 172 R. 3	175 5	347 8	355	347	225	22	347	8	8	100·	100·	34·30	710	68·59	4	0·39
68	Kalyan do.	12,910	5,164·	1	P. 264 R. 18	304 7	668 25	693	668	308	165	569	25	21	85·18	84·00	45·70	213	16·99	4	0·21
69	Thana do.	14,456	2,009·76	1	P. 268 R. 56	197 ...	465 56	521	465	290	93	465	56	31	100·	55·36	34·32	1,153	79·76	4	0·28
70	In the 11 Rural Circles. { Municipal Local Fund	870,831	205·85	13	P. 59 R. 2 P. 8,677 R. 163	61 1 8,349 77	120 3 17,026 240	123 1,328	120 17,079	101 8,887	16 7,383	120 16,656	3 242	2 138	100· 97·71	100· 57·80	0·14 19·26	19,192	22·04	194	0·22
	Total ...	908,548	214·14	15	P. 9,546 R. 242	9,086 90	18,626 332	1,264	18,679	10,001	7,679	18,137	334	201	97·37	60·54	20·18	21,268	23·41	206	0·23

Statement No. I, showing Particulars of Vaccination, &c.—*continued.*

Number.	Circles and Districts.	Population of Districts according to Census of 1881.	Average Population per Square Mile.	Average Number of Vaccinators employed throughout the Season.	Total Number of Persons vaccinated.			Average Number of Persons vaccinated by each Vaccinator.	Primary Vaccinations.				Revaccinations.		Percentage of Successful Cases.		Persons re-vaccinated by Government per 1,000 of Population.	Average Annual Number of Persons successfully vaccinated during previous five years.		Average Annual Number of Deaths from Small-pox during previous five years.	
									Total.	Successful.			Total.	Successful.	Primary.	Revaccination.		Number.	Ratio per 1,000.	Number.	Ratio per 1,000.
										Under 1 year.	Over 1 and under 6 years.	Total of all ages.									
1	2	3	4	5	6			7	8	9	10	11	12	13	14	15	16	17	18	19	20
	THE KONKAN REGISTRATION DISTRICT—*continued.*				Males.	Females.	Total.														
	NATIVE STATES—																				
71	Sávantvádi	174,433	493·81	1	P. 2,781 R. 1,108	2,760 556	5,541 1,664	7,205	5,009	4,095	1,685	5,422	1,664	1,031	97·85	61·96	36·99	4,388	25·20	...	...
72	Janjira	76,361	234·96	1	P. 1,113 R. 11	1,044 7	2,157 18	2,175	2,171	1,102	946	2,151	18	18	99·72	100·	28·40	2,196	28·76	...	...
73	Jawhár	48,556	90·93	1	1,096	1,050	2,146	2,146	2,146	1,316	727	2,146	...	...	100·	...	44·07	1,786	36·99	...	...
	TOTALS BY ESTABLISHMENTS IN KONKAN REGISTRATION DISTRICT.																				
	Municipal	51,478	2422·66	3	P. 1,200 R. 273	1,092 54	2,292 327	843	2,292	1,247	544	1,976	327	175	89·74	53·52	41·78	2,632	38·13	11	0·21
	Local Fund	2,657,649	198·17	44	P. 31,998 R. 1,631	30,310 968	62,308 2,599	1,475	62,519	27,398	28,703	60,375	2,603	1,754	96·90	67·49	23·38	60,434	22·74	340	0·13
	Native State	299,350	169·60	3	P. 4,990 R. 4,119	4,854 563	9,844 1,682	3,842	9,926	6,513	2,758	9,719	1,682	1,049	98·73	62·37	35·97	8,580	28·66	...	...
	Grand Total ...	3,008,477	196·96	50	P. 38,188 R. 3,023	36,166 1,585	74,354 4,608	1,579	74,647	35,158	32,005	72,070	4,612	2,978	96·93	64·63	24·25	71,646	23·81	351	0·12
	THE PRESIDENCY CIRCLE.																				
74	Bombay City (Municipal) ..	773,196	35145·27	8	P. 7,791 R. 1,818	8,032 527	15,823 2,345	2,271	16,226	12,331	2,157	14,911	2,345	2,071	94·24	88·32	21·96	17,654	22·83	415	0·54
	THE EASTERN GUJARÁT REGISTRATION DISTRICT.																				
	SURAT COLLECTORATE—																				
75	Bulsár Town	13,229	2291·60		...	...	...	*Vide* Statement No. III.					...	...	...	...	...	...	...	1	0·08
76	Surat do.	109,844	36614·66	2	P. 1,380 R. 134	1,382 9	2,752 143	1,447	2,761	2,213	341	2,589	143	24	94·08	16·78	23·79	2,196	19·99	156	1·42
77	In the 8 Rural Circles, Local Fund.	491,125	296·39	8	P. 7,226 R. 117	7,097 35	14,323 152	1,809	14,379	9,268	4,141	13,658	152	79	93·36	51·97	27·97	12,779	26·02	43	0·09
	Total ..	614,198	369·44	10	P. 8,616 R. 251	8,479 44	17,075 295	1,737	17,140	11,481	4,482	16,247	295	103	95·15	34·92	26·62	14,975	24·38	200	0·33

	BROACH COLLECTORATE—																								
78	Broach City	37,281	22153·42	1	P. 679 R. 200	654 7	1,333 207	1,540	1,536	896	266	1,184	207	38	88·82	18·26	32·78	805	21·59	12	0·22
79	Jambusar Town, Local Fund...	11,479	21110·80		P. 236 R. 19	195	431 19	450	432	256	130	390	19	15	90·49	78·05	35·28	...	...	1	0·09
80	In the 6 Rural Circles, Local Fund.	278,179	191·73	5	P. 4,830 R. 4,814	4,443 290	9,273 5,101	2,875	9,408	6,299	2,441	8,837	5,102	2,806	95·20	55·01	41·86	6,369	22·09	12	0·04
	Total ...	326,930	224·99	6	P. 5,745 R. 5,690	5,292 297	11,037 5,327	2,727	11,196	7,451	2,837	10,411	5,328	2,859	94·23	53·67	40·59	7,174	21·94	25	0·08
	KAIRA COLLECTORATE—																								
81	Borsad Town	12,228	64146·89	...	...	...	...			Vide	Statement	No. III.						42	3·43	...	...
82	Kapadvanj Town	14,442	63307·49	...	...	...	Do.	...	...	...	...	...	...	...	...	...	...	...	...	...	...
83	Nadiad do. ...	28,304	83044·88	1	P. 558 R. 46	476 6	1,034 52	1,036	1,035	837	151	995	52	9	96·32	17·31	25·51	871	30·77	3	0·11
84	Kaira do. Local Fund...	12,640	44942·22	...	...	227	502	429	430	242	146	391	...	...	91·14	...	30·93	238	18·83	...	...
85	In the 7 Rural Circles, Local Fund.	737,186	458·57	8	P. 12,686 R. 148	10,895 13	23,581 161	2,968	23,677	16,650	6,446	23,199	161	89	98·28	55·28	31·59	17,222	23·36	85	0·12
	Total ...	804,800	500·31	9	P. 13,471 R. 194	11,573 19	25,044 213	2,806	25,142	17,729	6,743	24,586	213	98	98·15	46·01	30·67	18,373	22·83	88	0·11
	PANCH MAHÁLS—																								
86	Godhra Town	13,342	79802·62	...	...	...	...			Vide	Statement	No. III						...	...	9	0·67
87	Dohad do. Local Fund ...	12,394	74132·64	...	P. 243 R. 183	213 3	456 186	642	456	308	138	450	186	157	98·68	84·41	45·30	430	34·69	3	0·24
88	In the 3 Rural Circles, Local Fund.	229,743	142·43	3	P. 4,312 R. 127	4,152 50	8,665 177	1,768	8,690	4,744	3,500	8,495	178	156	98·04	84·75	37·63	6,057	26·36	23	0·10
	Total ...	255,479	158·35	3	P. 4,756 R. 310	4,365 53	9,121 363	1,897	9,146	5,052	3,638	8,945	364	307	98·07	84·57	36·21	6,487	25·39	35	0·14
	AHMEDABAD COLLECTORATE—																								
89	Dholka Town	17,716	23621·33	1	P. 349 R. 2	324 ...	673 2	675	679	572	55	630	2	1	93·61	50·00	35·62	522	29·46	1	0·06
90	Ahmedabad City	124,767	57732·87	2	P. 2,425 R. 141	2,153 31	4,578 172	2,410	4,598	3,863	611	4,501	172	137	98·32	79·65	37·49	3,840	30·78	1	0·01
91	Ahmedabad Cantonment ...	2,854	30		P. 34 R. 37	41 ...	71 37		71	65	6	71	...	...	100	...	24·88	62	21·72	...	...
92	Gogha Town, Local Fund ...	7,063	9417·33	...	P. 154 R. 1	148 1	302 2	304	302	297	62	273	2	1	90·46	50·00	38·79	280	39·64	2	0·28
93	Viramgam Town, Local Fund.	18,990	30923·19	...	P. 362 R. 1	379 1	741 2	743	742	538	181	725	2	2	97·84	100·	38·28	587	30·91	2	0·11
94	In the 7 Rural Circles. { Municipal ...	684,934	179·45	11	P. 77 P. 11,309	97 10,557	174 21,866	174	174	140	12	152	...	...	87·36	...	0·22	17,138	25·02	76	0·11
	{ Local Fund .				R. 542	139	681	2,050	21,949	17,046	4,015	21,175	681	336	96·84	49·34	31·41				
	Total ...	856,324	224·10	14	P. 14,706 R. 687	13,690 172	28,405 859	2,090	28,515	22,431	4,942	27,527	859	477	96·91	55·53	32·70	22,429	26·19	82	0·10
95	Rewa Kántha States	543,452	113·41	12	P. 9,638 R. 163	8,903 56	18,541 219	1,563	18,594	6,661	10,228	18,148	220	166	97·88	75·80	33·70	12,190	22·43	...	...
96	Mahi Kántha States	517,485	46·84	5	P. 6,240 R. 23	5,537 1	11,777 24	2,361	11,819	5,839	5,582	11,507	26	22	97·71	84·62	22·28	9,788	18·91	...	...
97	Cambay	86,074	243·93	1	P. 702 R. 2	602 2	1,304 4	1,308	1,313	647	570	1,222	4	2	93·71	50·00	14·22	1,701	19·78	...	...
98	{ Dharampur ...	101,289	127·57	1	P. 1,098	1,059	2,157	2,157	2,157	296	1,320	2,000	...	...	96·89	...	29·63	2,304	25·81	...	...
99	Surat Agency . { Bánsda ...	34,122	88·86	1	R. 770	793	1,563	1,563	1,563	622	766	1,486	...	...	99·07	...	43·55	1,096	32·12	...	...
100	{ Sachin Local Fund.	15,721	374·31		P. 288 R. 5	303 3	591 8	599	603	427	128	555	8	7	94·25	87·93	35·88	466	29·64	...	...
101	Jambughoda Local Fund ...	6,440	45·03	...	P. 208 R. 2	224 1	432 3	435	435	245	181	426	3	2	98·61	66·67	66·46	186	21·12	...	...

Statement No. I, showing Particulars of Vaccination, &c.—*continued.*

Number	Circles and Districts.	Population of Districts according to Census of 1881.	Average Population per Square Mile.	Average Number of Vaccinators employed throughout the Season.	Total Number of Persons vaccinated.			Average Number of Persons vaccinated by each Vaccinator.	Primary Vaccinations.				Revaccinations.		Proportion of Successful Cases.		Persons successfully vaccinated per 1,000 of Population	Average Annual Number of Persons successfully vaccinated during previous five years.		Average Annual Number of Deaths from Small-pox during previous five years.	
									Total.	Successful.			Total.	Successful.	Primary.	Revaccination.		Number.	Ratio per 1,000.	Number.	Ratio per 1,000.
					Males.	Females.	Total.			Under 1 year.	Over 1 and under 6 years.	Total of all ages.									
1	2	3	4	5	6			7	8	9	10	11	12	13	14	15	16	17	18	19	20
	THE SIND REGISTRATION DISTRICT—*continued.*																				
	Hyderabad Collectorate—																				
126	Hyderabad Town	45,195	...	1	P. 999 R. 746	463 43	1,462 789	2,251	1,462	1,381	75	1,460	789	758	99·86	96·07	49·08	1,841	40·73	38	0·84
127	In the 13 Rural Circles, Local Fund.	709,429	78·37	13	P. 11,923 R. 1,816	9,967 474	21,890 2,290	1,860	21,962	14,436	5,285	20,393	2,291	1,210	93·16	52·84	30·45	22,898	32·28	69	0·10
	Total ...	754,624	83·57	14	P. 12,922 R. 2,562	10,430 517	23,352 3,079	1,888	23,424	15,817	5,360	21,853	3,080	1,968	93·38	63·92	31·57	24,739	32·78	107	0·14
	Thar and Párkar—																				
128	Umarkot Town	2,828	...	...	.....	...	...	*Vide* Statement No. III.					...	...	...	...	...	...	...	...	...
129	In the 7 Rural Circles, Local Fund.	200,516	15·75	7	P. 5,333 R. 1,404	4,273 2,952	9,606 4,356	1,995	9,624	6,531	2,530	9,315	4,363	3,224	96·97	74·01	62·53	12,739	63·53	8	0·04
	Total ...	203,344	15·97	7	P. 5,333 R. 1,404	4,273 2,952	9,606 4,356	1,995	9,624	6,531	2,530	9,315	4,363	3,224	96·97	74·01	61·66	12,739	62·65	8	0·04
	Shikárpur Collectorate—																				
130	Shikárpur Town	42,496	8499·20	1	P. 628 R. 277	585 9	1,213 286	1,499	1,242	1,105	45	1,151	286	6	94·89	2·10	27·23	2,206	51·91	35	0·82
131	Sukkur do.	27,389	9129·66	1	P. 1,393 R. 638	270 600	1,663 1,238	2,901	1,663	1,602	59	1,661	1,238	1,236	99·88	99·84	105·81	2,694	98·36	5	0·18
132	Lárkhána do.	13,188	2198·	1	P. 233 R. 2	177	410 2	412	411	373	6	380	2	2	92·68	100·	28·97	301	22·82	5	0·38
133	In the 17 Rural Circles, Local Fund.	769,913	77·09	17	P. 12,671 R. 1,955	11,299 4,182	23,970 6,137	1,771	24,096	18,479	4,002	22,677	6,147	4,070	94·61	66·22	34·74	31,446	40·84	187	0·24
	Total ...	852,986	85·29	20	P. 14,925 R. 2,872	12,331 4,791	27,256 7,663	1,746	27,412	21,559	4,112	25,869	7,673	5,314	94·91	69·25	36·56	36,647	42·96	232	0·27
	Upper Sind Frontier—																				
134	Jacobabad Town and Cantonment.	11,352	...	...	.....	...	...	*Vide* Statement No. III.					...	...	...	...	...	86	7·58	2	0·18
135	In the 3 Rural Circles, Local Fund.	112,829	52·74	3	P. 2,293 R. 655	2,028 1,483	4,321 2,138	2,153	4,360	3,201	952	4,200	2,200	1,337	97·20	62·54	49·07	5,838	51·74	30	0·27
	Total ...	124,181	58·05	3	P. 2,293 R. 655	2,028 1,483	4,321 2,138	2,153	4,360	3,201	952	4,200	2,200	1,337	97·20	62·54	44·39	5,924	47·70	32	0·26
	Native State—																				
136	Khairpur State	129,153	21·14	3	P. 1,739 R. 2	1,388 3	3,127 5	1,044	3,127	1,909	831	3,045	5	4	97·38	80·00	23·61	2,521	19·52	...	...

	MENTS IN SIND REGISTRATION DISTRICT.																				
	Municipal	196,600	5782·35	6	P. 5,271 R. 3,104	3,271 963	8,542 4,067	2,101	8,624	7,144	775	8,363	4,067	3,329	97·90	81·85	59·47	11,447	58·22	104	0·53
	Local Fund	2,217,223	46·21	49	P. 39,025 R. 6,709	33,426 10,686	72,451 17,395	1,834	72,728	51,205	15,912	68,633	17,475	11,319	94·73	65·07	36·06	89,164	40·21	350	0·16
	Native State	129,153	21·14	3	P. 1,739 R. 2	1,388 3	3,127 5	1,044	3,127	1,909	831	3,045	5	4	97·38	80·00	23·61	2,521	19·52	...	...
	Grand Total ...	2,542,976	46·99	58	P. 46,035 R. 9,815	38,085 11,652	84,120 21,467	1,820	84,479	60,258	17,518	80,041	21,547	14,652	95·15	68·25	37·24	103,132	40·56	454	0·18
	THE BARODA CIRCLE.																				
137	Baroda States	2,185,005	254·96	31	P. 35,143 R. 404	31,849 56	66,992 460	2,176	67,163	51,594	12,247	64,540	474	336	96·34	73·04	29·69	53,195	24·35	...	...
	THE CUTCH CIRCLE.																				
138	Cutch States	512,084	78·78	17	P. 9,539 R. 240	9,264 24	18,803 264	1,122	18,885	10,938	6,734	18,638	264	231	99·12	87·50	36·85	16,386	32·00	...	...
	ADEN.																				
139	Aden Municipality	34,860	2962·07	1	P. 406 R. 2	175 2	581 4	585	581	45	241	425	4	2	73·15	50·00	12·25	704	20·20	...	...
	TOTAL OF THE BOMBAY PRESIDENCY. BY ESTABLISHMENTS.																				
	Government	126,019	110·98	2	P. 3,263 R. 400	3,137 136	6,400 536	3,468	6,415	3,769	2,361	6,165	536	473	96·33	88·25	52·67	4,518	35·68	...	...
	Municipal	1,807,903	15841·86	39	P. 31,327 R. 6,939	28,232 1,887	59,559 8,826	1,753	60,112	42,149	12,748	56,670	8,832	6,610	95·15	74·89	35·00	57,824	31·98	794	0·44
	Cantonment	37,381	4255·40	1	P. 887 R. 184	578 68	1,465 252	1,717	1,465	1,247	199	1,449	252	131	98·91	51·98	42·27	1,248	33·39	13	0·35
	Local Fund	14,666,151	118·09	249	P. 227,222 R. 17,042	213,958 13,285	441,180 30,327	1,894	442,240	254,670	160,665	426,408	30,414	19,635	96·65	64·74	30·41	373,271	25·45	1,632	0·11
	Native State	8,978,074	112·63	146	P. 147,136 R. 6,895	137,044 3,658	284,180 10,553	2,019	284,824	1,162,401	99,557	269,598	10,568	7,241	94·87	68·62	30·84	214,261	23·86	...	...
	In British Territory ...	16,503,663	132·95	290	P. 259,223 R. 24,227	242,507 15,258	501,730 39,485	1,866	503,339	297,783	173,408	484,050	39,578	26,447	96·48	66·98	30·93	432,297	26·19	2,439	0·15
	In Native State Territory.	9,111,865	112·46	147	P. 150,612 R. 7,233	140,442 3,776	291,054 11,009	2,055	291,717	166,453	102,122	276,240	11,024	7,643	94·91	69·43	31·16	218,825	24·02	...	...
	GRAND TOTAL ...	25,615,528	124·86	437	P. 409,835 R. 31,460	382,949 19,034	792,784 50,494	1,930	795,056	464,236	275,530	760,290	50,602	34,090	95·90	67·51	31·01	651,122	25·42	2,439	0·10

STATEMENM No. II, showing the Cost of the Department

No.	Circles and Districts.	Establishment.																	Hyrodabes and Peons.
		Deputy Sanitary Commissioners.	Superintendents of Vaccination.	Inspectors of Sanitation and Vaccination,			Assistant Superintendents of Vaccination.			Clerks and Karkuns.	Vaccinators.								
														Local Fund.					
				1st Class.	2nd Class.	3rd Class.	1st Class.	2nd Class.	3rd Class.		Government.	Municipal.	Cantonment.	1st Class.	2nd Class.	3rd Class.	Chaukidars.	Native States.	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
	THE NORTHERN DECCAN REGISTRATION DISTRICT.																		
	Administrative Charges		1	..	1	1	3	..	..	..	7	..	..	..	..	..	..	..	11
1	Khándesh Collectorate	..	..	..	..	..	..	..	..	..	..	1	..	1	7	10	..	..	18
2	Násik do.	..	..	..	..	..	..	..	..	..	..	1	..	1	5	6	1	..	13
3	Ahmednagar do.	..	..	..	..	..	..	..	..	..	..	1	..	1	5	6	1	..	13
4	Poona do.	..	..	..	..	..	..	..	..	..	..	2	1	1	5	6	1	..	17
5	Sholápur do.	..	..	..	..	..	..	..	..	..	..	3	..	1	5	5	1	1	16
	Total ..	..	1	..	1	1	3	..	..	..	7	..	8	1	3	33	41	3	1	97
	THE SOUTHERN DECCAN REVISION DISTRICT.																		
	Administrative Charges		1	..	1	1	3	..	..	..	7	..	..	..	..	..	..	..	4
6	Sátára Collectorate	..	..	..	..	..	..	..	..	..	..	1	..	1	5	6	1	..	20
7	Belgaum do.	..	..	..	..	..	..	..	..	..	..	1	..	1	3	7	1	..	17
8	Dhárwár do.	..	..	..	..	..	..	..	..	..	..	2	..	1	2	9	1	1	17
9	Kolhápur do.	..	..	..	..	..	..	..	..	..	..	1	..	1	3	8	1	..	14
10	Kolhápur States	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	11	11
11	Southern Maratha Jágírs ..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	17	..	13	30
	Total ..	..	1	..	1	1	4	..	..	1	7	..	6	..	4	16	79	4	26	133
	THE KONKAN REGISTRATION DISTRICT.																		
	Administrative Charges		1	..	1	1	3	..	..	..	6	..	..	..	..	..	..	..	4
12	Kánara Collectorate	..	..	..	..	..	..	..	..	..	..	1	..	1	3	5	1	..	11
13	Ratnágiri do.	..	..	..	..	..	..	..	..	..	..	..	..	1	6	6	1	..	14
14	Kolába do.	..	..	..	..	..	..	..	..	..	..	..	..	1	2	5	1	..	9
15	Thána do.	..	..	..	..	..	..	..	..	..	..	2	..	1	9	6	1	1	19
	Total ..	1	..	1	1	2	..	..	..	1	6	..	2	..	4	17	33	4	2	62
	THE PRESIDENCY CIRCLE.																		
	Administrative Charges	..	1	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1
16	Bombay	..	..	..	..	..	1	..	..	17	..	9	..	..	..	..	..	..	9
	Total ..	..	1	..	..	..	1	..	..	17	..	9	..	..	..	..	..	..	9
	THE EASTERN GUJARAT REGISTRATION DISTRICT.																		
	Administrative Charges		1	..	1	1	3	..	..	..	7	..	..	..	..	..	..	..	2
17	Surat Collectorate	..	..	..	..	..	..	..	..	..	..	2	..	1	3	4	1	2	11
18	Broach do.	..	..	..	..	..	..	..	..	..	..	1	..	1	1	3	1	..	7
19	Kaira do.	..	..	..	..	..	..	..	..	..	..	1	..	1	1	4	1	1	8
20	Panch Mahals	..	..	..	..	..	..	..	..	..	..	..	..	1	2	2	..	..	5
21	Ahmedabad Collectorate ..	..	..	..	..	..	..	..	..	..	..	3	..	1	2	7	1	..	14
22	Mahi Kántha Agency ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4	4
23	Rewa Kántha Agency ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	13	13
	Total ..	1	..	1	1	3	..	..	..	7	..	7	..	5	13	29	4	20	71
	THE WESTERN GUJARAT CIRCLE.																		
	Administrative Charges		..	1	..	..	..	1	1	2	..	..	..	..	..	..	..	..	..
24	Kathiawár	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	25	25
25	Pálanpur	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	6	6
	Total ..	..	1	..	..	..	1	1	2	2	..	..	..	..	..	..	..	31	31
	THE SIND REGISTRATION DISTRICT.																		
	Administrative Charges		1	1	1	1	4	..	..	..	8	..	..	..	..	..	..	..	1
26	Karáchi Collectorate	..	..	..	..	..	..	..	..	..	..	2	..	1	3	4	1	..	11
27	Hyderabad do.	..	..	..	..	..	..	..	..	..	..	1	..	1	3	6	1	..	12
28	Thar and Párkar	..	..	..	..	..	..	..	..	..	..	..	..	1	3	5	1	..	10
29	Shikárpur Collectorate ..	..	..	..	..	..	..	..	..	..	..	2	..	1	6	10	1	2	20
30	Upper Sind Frontier	..	..	..	..	..	..	..	..	..	..	..	..	1	1	1	1	..	4
	Total ..	1	1	1	1	4	..	..	..	8	..	6	..	6	16	26	5	3	56
	THE BARODA CIRCLE.																		
31	Baroda States	..	..	1	1	1	..	..	..	..	..	..	..	..	..	..	..	31	31
	THE CUTCH CIRCLE.																		
32	Cutch States	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	17	17
	IN THE ADEN MUNICIPALITY.																		
33	Aden	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..
	TOTAL FOR THE BOMBAY PRESIDENCY	5	7	6	6	19	7	4	5	59	7	40	8	23	69	187	25	136	495

DEPARTMENT.

in the ombay Presidency during the year 1883-84.

Expenditure.				Paid from						Number of all successful Vaccinations and Revaccinations.	Average Cost of each successful Case
Pay of Establishment.	Travelling Allowances.	Contingencies.	Total Cost.	Provincial Funds.	Local Funds.	Municipal Funds.	Cantonment Funds.	Native States Funds.	Total.		
21	22	23	24	25	26	27	28	29	30	31	32
Rs. a. p.	a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.		Rs. a. p.
14,991 12 2	37 10 4	661 15 3	19,551 6 9	19,551 6 9	....	4,722 10 1	....	....	19,971 4 9	....	....
4,708 5 2	....	264 4 1	4,972 9 3	....	....	4,708 5 2	....	....	4,972 9 3	24,865	0 3 2
3,264 1 6	....	141 2 4	3,745 3 10	....	....	3,486 3 10	259 0 0	....	3,745 3 10	20,749	0 3 11
3,656 10 10	....	186 3 7	3,843 14 5	....	....	3,543 3 5	300 11 0	....	3,843 14 5	17,087	0 3 5
5,015 6 2	....	570 13 6	5,604 3 8	....	....	4,131 0 8	614 14 6	858 8 8	5,604 3 8	24,178	0 3 9
2,814 9 10	....	127 0 9	2,991 1 7	....	....	2,659 4 10	261 16 3	329 13 6	3,991 1 7	28,575	0 2 3
39,190 5 9	10 4	2,092 7 6	43,559 7 6	19,551 6 9	20,131 6 9	2,509 9 1	675 4 6	379 13 6	43,559 7 6	166,113	0 4 1
16,079 15 4	3 2 0	1,241 3 2	19,754 14 7	19,754 14 7	....	....	....	....	19,754 14 7	....	....
3,767 3 2	....	427 12 9	4,815 1 11	....	....	4,787 3 2	....	1,273 10 2	4,815 1 11	43,056	0 1 6
3,439 2 6	....	364 0 6	3,803 3 0	....	....	3,495 15 7	307 3 10	....	3,803 3 0	28,127	0 2 2
3,602 1 6	....	738 12 3	4,340 13 9	....	....	4,063 12 6	317 4 9	274 12 0	4,655 13 3	28,519	0 2 5
3,567 15 6	....	225 11 3	3,793 10 9	....	....	2,681 10 8	106 6 0	....	2,787 16 8	20,040	0 2 2
3,871 10 0	....	1155 15 6	3,803 7 6	....	....	....	....	3,803 7 6	3,803 7 6	28,473	0 2 4
3,186 7 10	....	217 10 5	3,556 2 3	....	....	....	....	3,556 2 3	3,556 2 3	25,110	0 2 9
39,584 9 8	3 2 0	3,459 15 5	43,845 3 1	19,754 14 7	15,439 14 11	1,228 4 7	....	8,031 1 0	43,845 3 1	191,139	0 4 6
13,554 6 3	3,4 3	694 10 9	16,170 9 11	16,170 9 11	....	....	....	....	16,170 9 11	....	....
2,313 10 10	....	185 10 9	2,499 5 7	....	2,419 9 3	47 13 1	....	....	2,467 5 4	11,659	0 3 1
4,060 10 10	....	267 7 6	4,328 1 10	....	3,690 15 6	....	....	603 2 4	4,293 18 10	25,619	0 2 7
4,068 12 0	....	174 13 3	4,274 9 3	....	1,051 9 6	....	....	543 3 9	1,594 13 3	17,196	0 1 6
4,563 5 0	1	310 15 0	4,909 2 0	....	4,000 13 1	682 2 11	....	246 9 0	4,929 5 0	20,494	0 3 11
27,452 4 3	2,4 3	1,942 6 9	31,514 12 6	16,170 9 11	15,439 8 6	740 15 6	....	1,394 11 1	33,514 12 6	73,963	0 6 9
4,000 0 0	3,6	14 3 0	4,578 2 0	4,578 2 0	....	....	....	....	4,578 2 0	....	....
9,333 7 10	....	6,138 10 11	15,960 2 9	....	....	15,960 2 9	....	....	15,960 2 9	16,982	1 2 9
13,333 7 10	3,6	6,152 13 11	19,938 4 9	4,578 2 0	....	15,960 2 9	....	....	19,938 4 9	16,982	1 2 9
12,478 14 6	2,10	1,006 13 3	19,613 8 5	19,613 8 5	....	....	....	....	19,613 8 5	....	....
2,284 12 2	....	231 5 6	2,516 1 8	....	....	2,247 9 10	239 9 1	681 15 9	3,168 2 8	20,490	0 2 2
1,809 8 1	1	188 5 5	1,979 9 6	....	....	1,817 4 3	162 15 3	....	1,979 9 6	13,570	0 2 1
2,817 0 0	....	245 1 8	3,062 1 8	....	....	2,704 6 8	235 13 0	225 14 0	3,065 1 8	25,908	0 1 11
1,421 0 0	....	125 0 4	1,546 2 7	....	....	1,546 2 7	....	....	1,546 2 7	9,680	0 2 7
3,871 0 4	10	384 8 1	4,271 7 5	....	....	3,985 8 9	911 14 8	....	4,271 7 5	28,984	0 2 5
1,020 0 0	....	80 0 0	1,100 0 0	....	....	....	....	1,100 0 0	1,100 0 0	11,520	0 1 10
3,000 7 8	....	178 13 4	3,179 0 0	....	....	....	....	3,179 0 0	3,179 0 0	19,374	0 2 9
32,700 14 2	3,19 1	2,639 9 1	39,469 5 0	19,613 8 5	11,390 1 0	2,939 4 4	....	5,227 7 3	39,460 2 0	127,195	0 4 10
6,896 4 2	2,0 2	693 3 0	12,790 13 11	12,190 13 11	....	....	....	600 0 0	12,790 13 11	....	....
11,235 0 5	1,8 0	1,845 7 6	14,091 8 2	3,01 0 0	....	....	....	13,339 9 2	14,091 9 2	79,922	0 2 10
2,250 0 0	....	23 14 6	2,993 14 6	126 0 0	....	....	126 0 0	1,851 14 6	2,003 14 6	13,096	0 2 9
22,371 4 7	3,9 3	2,562 5 0	29,906 7 7	12,190 13 11	....	....	126 0 0	15,271 7 8	29,906 7 7	93,018	0 4 8
17,153 15 10	2,6 4	1,753 15 11	19,913 11 5	19,754 14 6	....	1,180 13 2	....	....	20,935 11 8	....	....
3,019 0 0	....	790 9 5 4	3,809 14 10	....	3,284 14 10	655 0 0	....	....	3,939 14 10	18,564	0 3 4
4,018 7 5	....	782 15 5 4	5,097 10 9	....	4,691 10 9	406 0 0	....	....	5,097 10 9	23,871	0 3 4
2,040 0 0	....	447 3 10 1	2,487 12 10	....	2,027 12 10	....	....	....	2,027 12 10	14,539	0 2 4
7,259 2 1	....	1,044 5 14 7	8,303 7 8	....	5,991 1 8	1,180 0 0	....	1,312 6 0	8,483 7 8	34,232	0 4 11
1,911 1 0	....	186 3 6 2	1,376 10 9	....	1,376 10 9	....	....	....	1,376 10 9	5,337	0 4 8
34,355 2 6	6,14 7	4,504 13 11	42,323 14 1	19,754 14 6	17,892 4 5	3,304 13 2	....	1,917 0 0	42,823 14 1	94,495	0 7 6
11,596 2 0	....	113 13 2 3	11,913 5 11	....	....	....	....	11,913 5 11	11,913 5 11	84,876	0 2 11
3,758 7 6	3,6 1	7,419 9 7	....	....	....	....	....	7,419 9 7	7,419 9 7	13,869	0 6 3
450 0 0	....	0	450 0 0	....	....	450 0 0	....	....	450 0 0	437	0 15 11
2,36,375 11 11	22,10 7 1	2,39,778 9 9	111,779 9 1	78,847 1 5	26,716 1 11	804 4 6	52,611 8 0	2,69,738 9 0	794,390	0 6 5	

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B.—DISPENSARY VACCINATION.

Statement No. III, showing Dispensary Vaccination in the Bombay Presidency during the year 1883-84.

Districts.	Number of Dispensaries in each District to which a Vaccinator is attached.	Average Number of Vaccinators attached to Dispensaries during the Season.	Total Number of Persons Vaccinated.			Average Number of Persons vaccinated by each Vaccinator.	Primary Vaccination.				Re-vaccination.		Percentage of Successful Cases.	
								Successful.						
			Males.	Females.	Total.		Total.	Under 1 year.	Last under 6.	Total of all Ages.	Total.	Successful.	Primary.	Revaccination.
1	2	3	4			5	6	7	8	9	10	11	12	13
THE NORTHERN DECCAN REGISTRATION DISTRICT.														
Khándesh Collectorate. Sháhada			26	21	47	47	47	33	5	38	...	...	80·85	...
Nandurbár			54	60	111	111	111	56	33	89	...	...	80·18	...
Taloda			85	81	166	166	166	139	6	149	...	...	89·76	...
Prála			338	368	706	706	706	598	108	706	...	...	100	...
Erandol			205	179	384	384	385	325	48	374	...	...	97·0	...
Dharangaon			P. 27	32	59	77	59	35	20	55	18	14	93·22	77·78
			R. 18	...	18									
Pimpalner			P. 30	41	91	94	91	58	32	91	3	3	100	100
			R. 2	1	3									
Bhadgaon			58	47	103	103	103	66	32	98	...	...	95·5	...
Shirpur			139	148	287	287	287	235	41	276	...	...	96·17	...
Total	...	...	P. 977	977	1,954	219	1,935	1,546	325	1,876	21	17	96·01	80·95
			R. 20	1	21									
Násik Collectorate. Sinnar			100	110	210	210	210	145	49	194	...	...	92·38	...
Dindori			71	61	132	132	132	110	19	131	...	...	99·24	...
Yeola			P. 218	253	471	473	471	327	80	408	2	1	86·62	50·00
			R. ...	2	2									
Málegaon			48	47	95	95	95	52	35	87	...	...	91·58	...
Satána			72	111	183	183	183	170	13	183	...	...	100	...
Peint			46	55	101	101	101	47	37	87	...	...	86·14	...
Pimpalgaon B.			43	49	92	92	92	77	13	90	...	...	97·82	...
Total	...	...	P. 598	686	1,284	184	1,284	928	246	1,180	2	1	91·90	50·00
			R. ...	2	2									
Ahmednagar Collectorate. Shevgaon			53	64	117	117	120	47	36	84	...	...	71·79	...
Newasa			54	51	105	105	105	93	11	104	...	...	99·05	...
Total	...	...	107	115	222	112	225	140	47	188	...	...	84·68	...
Poona Collectorate. Álandi			11	16	27	27	27	12	5	17	...	...	62·96	...
Junnar			80	56	136	136	136	86	46	132	...	...	97·06	...
Indápur			48	52	100	100	102	37	43	80	...	...	80·00	...
Khed			11	17	28	28	28	16	3	19	...	...	67·86	...
Talegaon Dhamdhera			34	46	80	80	80	47	16	63	...	...	78·85	...
Sásvad			124	98	222	222	222	142	74	219	...	...	98·65	...
Jejuri			P. 59	52	111	112	111	82	26	108	1	1	97·30	100
			R. ...	1	1									
Báramati			108	92	200	200	200	116	43	162	...	...	81·00	...
Talegaon Dábhada			P. 40	28	68	69	68	26	7	33	1	1	48·53	100
			R. ...	1	1									
Total	...	...	P. 515	457	972	168	974	564	283	833	2	2	85·70	100
			R. ...	2	2									
Sholápur Collectorate. Karmála			P. 113	97	210	211	210	128	66	194	1	1	92·38	100
			R. ...	1	1									
Akalkot (Native State).			P. 183	165	348	349	348	278	64	342	1	1	98·28	100
			R. 1	...	1									
TOTAL FOR THE NORTHERN DECCAN REGISTRATION DISTRICT.	...	...	P. 2,493	2,497	4,990	173	4,996	3,584	1,011	4,613	27	22	92·44	81·48
			R. 21	6	27									
THE SOUTHERN DECCAN REGISTRATION DISTRICT.														
Sátára Collectorate. Wái			141	140	281	281	281	80	166	250	...	...	88·97	...
Pátan			P. 68	68	136	151	136	100	15	124	15	13	91·18	86·67
			R. 4	11	15									
Karád			P. 192	141	333	337	341	208	96	308	4	2	92·49	50·00
			R. 2	2	4									
Islámpur			140	123	263	263	263	184	77	261	...	...	99·24	...
Mhasvad			P. 77	77	154	158	154	58	92	153	4	4	99·35	100
			R. 4	...	4									
Pusesávli			67	83	150	150	150	134	14	150	...	...	100	...
Tásgaon			P. 184	151	335	332	336	138	129	267	17	1	79·70	5·88
			R. 14	3	17									
Total	...	...	P. 869	783	1,652	242	1,661	902	583	1,513	40	20	91·50	50·00
			R. 24	16	40									

Statement No. III, showing Dispensary Vaccination, &c.—*continued.*

Inspectors.	Number of Dispensaries in each Inspector's District, where Vaccination is attended.	Average Number of Vaccinations attended to Dispensaries during the Season.	Total Number of Persons Vaccinated.			Average Number of Persons vaccinated by each Vaccinator.	Primary Vaccination.				Revaccination.		Percentage of successful Cases.	
								Successful.						
			Males.	Females.	Total.		Total.	Under 1 year.	1 and under 6.	Total of all ages.	Total.	Successful.	Primary.	Revaccination.
1	2	3	4			5	6	7	8	9	10	11	12	13
THE SOUTHERN DECCAN REGISTRATION DISTRICT—*continued.*														
Belgaum Collectorate. Belgaum Jail	...	...	P 7 R 5	1	8 5	13	8	...	...	...	5	1	...	20·00
Chikodi	...	...	192	105	297	297	115	123	248	...	...		96·50	...
Saundatti	...	...	P 128 R 3	130 1	258 4	362	258	79	159	245	4	2	94·96	50·00
Gokák	...	...	P 174 R 1	217 ...	391 1	392	395	230	131	355	1	...	90·79	...
Athni	...	...	236	203	439	439	439	265	147	427	...	...	97·27	...
Total	...	...	P 697 R 9	656 1	1,353 10	273	1,357	679	560	* 1,275	10	3	94·24	30·00
Háveri	...	...	P 75 R 6	31 ...	106 6	112	120	11	37	58	6	1	54·72	16·67
Kaládgi Jail	...	...	P 1 R 45	2 17	3 62	65	3	1	...	1	62	53	33·33	85·48
Shindgi	...	...	P 68 R 1	56 ...	124 1	125	124	66	33	99	1	...	79·84	...
Bágevadi	...	...	P 86 R ...	114 1	200 1	201	200	73	94	174	1	1	87·00	100·
Ilkal	...	...	P 215 R 1	224 2	439 3	442	440	260	173	436	3	...	99·32	...
Bijapur	...	...	P 185 R 8	152 ...	337 8	345	341	72	226	301	8	3	89·32	37·50
Muddebihál	...	...	P 104 R 6	103 1	207 7	214	207	117	64	195	7	6	94·20	85·71
Total	...	...	P 659 R 61	651 21	1,310 82	232	1,315	589	590	1,206	82	63	92·06	76·83
Ajra	...	...	P 37 R 9	35 ...	72 9	81	72	39	26	69	9	6	95·83	66·67
Malkápur	...	...	71	68	139	139	140	68	58	126	...	...	90·65	...
Kolhápur	...	...	P 686 R 211	639 84	1,325 295	1,620	1,327	799	374	1,222	295	203	92·23	68·81
Gad Hinglaj	...	...	P 73 R 1	74 2	147 3	150	147	83	42	129	3	3	87·76	100·
Total	...	...	P 867 R 221	816 86	1,683 307	497	1,686	989	500	1,546	307	212	91·86	69·06
Sángli	...	...	P 259 R 11	217 4	467 15	482	475	129	255	397	15	6	85·01	40·00
Shahpur	...	...	P 173 R 190	151 23	324 213	537	324	47	110	161	213	27	49·69	12·68
Mangalvedha	...	...	P 134 R 28	148 ...	282 28	310	282	121	104	236	28	22	83·69	82·14
Tasdal	...	...	P 200 R 12	188 6	388 18	406	392	56	224	285	18	7	73·45	38·89
Shirhatti	...	...	15	18	33	33	33	18	11	29	...	...	87·88	...
Koochi	...	...	54	44	98	98	98	67	20	92	...	...	93·88	...
Miraj	...	...	P 481 R 62	398 13	879 75	954	898	407	373	829	75	15	94·31	20·00
Budgaum	...	...	57	53	110	110	110	63	45	109	...	...	99·09	...
Madhol	...	...	13	17	30	30	30	12	11	23	...	...	86·66	...
Ramdurg	...	...	66	60	126	126	126	40	56	100	...	...	79·36	...
Total	...	...	P 1,443 R 303	1,294 46	2,737 349	309	2,768	960	1,209	2,264	349	78	82·72	22·35
Native States, Total	...	...	P 2,310 R 524	2,110 192	4,420 656	363	4,454	1,949	1,709	3,810	656	290	86·20	44·21
TOTAL FOR THE SOUTHERN DECCAN REGISTRATION DISTRICT	...	...	P 4,810 R 624	4,231 170	8,841 794	291	8,907	4,130	3,479	7,802	794	377	88·93	47·48

Statement No. III, showing Dispensary Vaccination, &c.—*continued.*

Districts	Number of Dispensaries in each District with a Vaccinator in attendance.	Average Number of Vaccinators attached to Dispensaries during the Season.	Total Number of Persons vaccinated.			Average Number of Persons vaccinated by each Vaccinator.	Primary Vaccination.				Revaccination.		Percentages of Successful Cases.	
								Successful.						
							Total.	Under 1 year.	1 and under 6.	Total of all Ages.	Total.	Successful.	Primary.	Revaccination.
1	2	3	4			5	6	7	8	9	10	11	12	13
	THE KONKAN REGISTRATION DISTRICT.		Males.	Fe-males.	Total.									
Kánara Collectorate.	Kárwár		P. 137	129	266	343	266	88	123	231	77	67	86·84	87·01
			R. 49	28	77									
	Honávar		P. 331	284	615	665	615	89	388	615	50	50	100·	100·
			R. 36	14	50									
	Sirsi		P. 147	141	288	300	299	96	154	271	13	6	94·10	50·00
			R. 7	5	12									
	Siddápur		36	36	72	72	72	17	38	64	...	...	88·89	...
	Yellápur		P. 81	78	159	223	168	55	89	152	94	57	93·60	60·64
			R. 68	26	94									
	Haliyál	A.	P. 70	54	124	130	124	82	28	114	6	6	91·94	100·
			R. 5	1	6									
	Supa		P. 20	24	44	46	44	7	26	36	2	2	81·82	100·
			R. 2	...	2									
	Mundgod		21	27	48	48	48	33	13	47	...	...	97·92	...
	Total		P. 843	773	1,616	232	1,636	467	859	1,550	242	188	94·68	78·01
			R. 167	74	241									
Ratnágiri Collectorate.	Dápoli		P. 65	55	120	231	120	78	36	119	111	75	99·17	67·
			R. 68	43	111									
	Vengurla		143	114	257	257	257	61	146	247	...	...	96·11	...
	Total		P. 208	169	377	244	377	139	182	366	111	75	97·08	67·
			R. 68	43	111									
Kolába Collectorate.	Alibág		48	25	73	73	77	40	21	61	...	...	83·56	...
	Pen		P. 65	37	102	103	102	78	24	102	1	1	100·	100·
			R. ...	1	1									
	Mahád		P. 79	60	139	140	139	54	58	116	1	1	83·45	100·
			R. 1	...	1									
	Total		P. 192	122	314	105	318	172	103	279	2	2	85·85	100·
			R. 1	1	2									
Thána Collectorate.	Panvel		28	17	45	45	45	21	23	44	...	...	97·78	...
	Uran		52	33	85	85	88	58	20	78	...	...	91·76	...
	Bándra		P. 170	141	311	387	322	199	84	286	76	24	91·96	31·
	Bhiwndi		R. 29	56	76									
	Chinchni		139	107	246	246	246	133	91	224	...	...	91·06	...
	Kásta		32	38	70	70	70	28	38	69	...	...	98·57*	...
	Basscin		P. 124	111	235	237	235	144	84	229	2	...	97·45	...
	Mahim		R. 1	1	2									
	Mátheran		47	33	80	80	80	30	19	70	...	...	87·50	...
	Shahápur		44	32	76	76	76	22	34	57	...	...	75·00	...
			9	7	16	16	16	3	4	7	...	...	43·75	...
			P. 39	47	86	96	86	32	27	85	10	6	98·84	60·
			R. 6	4	10									
	Total		P. 684	566	1,250	134	1,264	710	424	1,149	88	30	91·92	34·
			R. 27	61	88									
Native States.	Sávantvádi State		P. 177	139	316	357	318	186	88	288	41	20	91·14	48·
			R. 25	18	41									
	TOTAL FOR THE KONKAN REGISTRATION DISTRICT		P. 2,104	1,769	3,873	181	3,913	1,674	1,656	3,612	484	315	93·26	65·
			R. 288	196	483									

Statement No. III, showing Dispensary Vaccination, &c.—*continued.*

Districts.	Number of Dispensaries in each District at which a Vaccinator is attached.	Average Number of Vaccinators attached to Dispensaries during the season.	Total Number of Persons Vaccinated.			Average Number of Persons vaccinated by each Vaccinator.	Primary Vaccination.				Revaccination.		Percentages of successful Cases.	
								Successful.						
							Total.	Under 1 year	1 and under 6.	Total of all Ages.	Total.	Successful.	Primary.	Revaccination.
1	2	3	4			5	6	7	8	9	10	11	12	13
Bombay City.				Males.	Females.	Total.								
THE PRESIDENCY CIRCLE.														
Her Majesty's Common Jail	...	...	R. 195	39	234	234	...	...	...	...	234	49	...	20·94
Her Majesty's House of Correction	...	...	R. 137	...	137	137	...	...	...	...	137	27	...	19·71
TOTAL FOR THE PRESIDENCY CIRCLE	...	...	332	39	371	185	...	...	...	...	371	76	...	20·49
Surat Collectorate.														
THE EASTERN GUJARAT REGISTRATION DISTRICT.														
Bárdoli	...	...	73	75	148	148	148	109	30	148	...	...	100·	...
Bárdoli	...	...	70	86	156	156	157	126	24	151	...	...	96·79	...
Bulsár	...	...	P. 181	146	327	329	327	149	161	310	2	2	94·80	100·
			R. ...	2	2									
Kálliawari	...	...	50	70	120	120	121	61	45	106	...	...	88·33	...
Total ...	...	...	P. 374	377	751	188	753	445	269	715	2	2	95·21	100·
			R. ...	2	2									
Broach Collectorate.														
Ankleswar	...	...	P. 21	24	45	54	45	37	6	45	9	8	100·	88·89
			R. 6	3	9									
Hánsot	...	...	P. 2	5	7	12	7	6	1	7	5	5	100·	100·
			R. 5	...	5									
Iláv	...	...	37	22	59	59	59	48	9	58	...	...	98·31	...
Total ...	...	...	P. 60	51	111	42	111	91	16	110	14	13	99·10	92·86
			R. 11	3	14									
Kaira Collectorate.														
Kapadvanj	...	...	197	172	369	369	369	229	125	346	...	...	93·77	...
Borsad	...	...	P. 157	133	290	291	291	195	82	277	1	1	95·52	100·
			R. ...	1	1									
Mehmadabad ...	...	...	145	120	265	265	265	254	10	264	...	...	99·62	...
Mahudha	...	...	45	50	95	95	95	40	55	95	...	...	100·	...
Kaira Jail ...	...	...	P. 85	1	86	93	86	...	...	68	7	4	79·07	57·14
			R. 7	...	7									
Total ...	...	...	P. 629	476	1,105	223	1,106	709	272	1,050	8	5	95·02	62·50
			R. 7	1	8									
Panch Mahals.														
Godhra	...	...	P. 323	264	587	596	587	470	117	587	9	9	100·	100·
			R. 5	4	9									
Ahmedabad Collectorate.														
Dholera	...	...	121	134	255	255	255	130	120	254	...	...	99·61	...
Sánand	...	...	11	6	17	17	17	13	3	16	...	...	94·12	...
Khárighoda ...	...	...	34	25	59	59	63	33	22	55	...	...	93·22	...
Total ...	...	...	166	165	331	110	335	176	145	325	...	...	98·19	...
Mahi Kantha Agency.														
Sádra	...	...	P. 121	81	202	223	202	164	24	188	21	7	93·07	33·33
			R. 21	...	21									
TOTAL FOR THE EASTERN GUJARAT REGISTRATION DISTRICT	...	...	P. 1,673	1,414	3,087	185	3,094	2,055	843	2,975	54	36	96·37	66·67
			R. 44	10	54									

	Districts.	Number of Dispensaries in each District, to which a Vaccinator is attached.	Average Number of Vaccinators attached to Dispensaries during the Season.	Total Number of Persons vaccinated.			Average Number of Persons vaccinated by each Vaccinator.	Primary Vaccination.				Revaccination.		Percentage of Successful Cases.	
									Successful.						
								Total.	Under 1 year.	1 and under 6.	Total of all Ages.	Total.	Successful.	Primary.	Revaccination.
1		2	3	4			5	6	7	8	9	10	11	12	13
Kathiáwár, Native States,	THE WESTERN GUJARAT CIRCLE.			Males.	Fe-males.	Total.									
	Wadhwán	...	...	P. 57	68	125	177	127	66	32	98	53	22	78·40	42·31
				R. 26	26	52									
	Sangad	...	...	P. 18	12	30	36	34	4	17	21	6	5	70·00	83·33
				R. 2	4	6									
	Mánekváda	...	...	19	25	44	44	44	17	18	35	...	...	79·54	...
	Rájkot	...	...	P. ...	1	1	53	1	...	...	...	52	14	...	26·92
				R. 50	2	52									
	Total	...	...	P. 94	106	200	77	206	87	67	154	111	41	77·00	37·27
				R. 78	32	110									
	Gondal	...	...	P. 186	187	273	280	377	316	21	337	7	7	90·35	100·
				R. 87	...	...									
	Upleta	...	...	P. 147	142	289	339	289	246	40	286	50	43	98·96	86·00
				R. 33	17	50									
	Dhoriji	...	...	P. 326	275	601	943	601	398	204	601	342	241	100·	70·47
				R. 261	81	342									
	Bháyávadar	...	...	78	65	143	143	143	111	29	140	...	...	97·90	...
	Limbdi	...	...	P. 206	223	429	441	431	341	41	385	12	8	89·74	66·67
				R. 7	5	12									
	Sárnál	...	...	P. 43	39	82	85	82	55	20	78	3	3	95·12	100·
				R. 3	...	3									
	Jhinjváda	...	...	89	67	156	156	156	102	1	103	...	...	66·03	...
	Dasáda	...	...	33	36	69	69	69	13	14	27	...	...	39·13	...
	Báútva	...	...	68	54	122	122	122	62	43	110	...	...	90·16	...
	Jetpur	...	...	17	19	36	36	36	17	6	23	...	...	63·89	...
	Lakhpádar	...	...	30	33	63	63	63	33	7	62	...	...	98·41	...
	Bagasra	...	...	24	25	49	49	50	39	8	47	...	...	95·92	...
	Total	...	...	P. 1,247	1,165	2,412	235	2,419	1,753	431	2,199	414	302	91·17	72·95
				R. 311	103	414									
	TOTAL FOR THE WESTERN GUJARAT CIRCLE	...	...	P. 1,341	1,271	2,612	196	2,625	1,840	498	2,353	525	343	90·08	65·46
				R. 389	135	524									
Kolaba Collectorate.	THE SIND REGISTRATION DISTRICT.														
	Thána Bula Khán	...	...	23	12	35	35	36	17	5	22	...	...	62·86	...
	Keti Bandar	...	...	23	25	48	48	48	34	11	46	...	...	95·83	...
	Mirpur Batoro	...	...	P. 39	29	68	73	68	41	13	54	5	5	79·41	100·
				R. 5	...	5									
	Tatta	...	...	P. 148	104	252	263	252	118	51	169	11	6	67·06	54·55
				R. 11	...	11									
	Jerruck	...	...	P. 32	21	53	55	53	31	15	46	2	2	86·79	100·
				R. 2	...	2									
	Sehwan	...	...	P. 31	20	51	52	51	11	33	44	1	1	86·27	100·
				R. 1	...	1									
	Total	...	...	P. 296	211	507	88	508	252	128	381	19	14	75·15	73·68
				R. 19	...	19									
Hyderabad Collectorate.	Thárú Shah	...	...	P. 10	12	22	23	22	10	6	16	1	1	72·73	100·
				R. 1	...	1									
	Hala	...	...	P. 91	68	159	160	162	78	69	147	1	...	92·45	...
				R. 1	...	1									
	Alahyar-jo-Tándo	...	...	P. 70	56	126	129	128	80	33	114	3	2	90·48	66·67
				R. 3	...	3									
	Tando	...	...	P. 59	40	99	103	99	42	33	76	4	2	76·77	50·00
				R. 4	...	4									
	Tando Bago	...	...	P. 38	33	71	84	72	35	34	70	13	12	98·59	92·31
				R. 10	3	13									
	Tando Adam	...	...	P. 73	42	115	119	115	29	56	86	4	2	74·78	50·00
				R. 2	2	4									
	Mirpur Khás	...	...	P. 22	10	32	33	32	25	6	32	1	1	100·	100·
				R. 1	...	1									
	Total	...	...	P. 363	261	624	93	639	299	237	541	27	20	86·70	74·07
				R. 22	5	27									
Thar and Parkar.	Nagar Parkar	...	...	36	33	69	69	69	66	1	67	...	...	97·10	...
	Mitti	...	...	32	24	56	56	56	40	15	55	...	...	98·21	...
	Umarkot	...	...	54	44	98	98	98	52	28	98	...	...	100·	...
	Khipra	...	...	P. 43	38	81	109	81	57	19	78	23	23	96·30	82·14
				R. 25	3	28									
	Total	...	...	P. 165	139	304	83	304	215	63	298	28	23	98·03	82·14
				R. 25	3	28									

Statement No. III, showing Dispensary Vaccination, &c.—*continued*.

	Districts	Number of Dispensaries to each District to which a Vaccinator is attached	Average Number of Vaccinators employed during the respective months of the season.	Total Number of Persons vaccinated.			Average Number of Persons vaccinated by each vaccinator.	Primary Vaccination.				Revaccination.		Percentage of Successful Cases.	
								Total.	Successful.			Total.	Successful.	Primary.	Revaccination.
									Under 1 year.	1 and under 6.	Total of all Ages.				
1		2	3	4			5	6	7	8	9	10	11	12	13
	THE SIND REGISTRATION DISTRICT—*continued*.			Males.	Females.	Total.									
Collectorate.	Rohri ...	...	...	P. 148 R. 160	116 24	264 184	448	264	232	27	259	184	147	98·11	79·89
	Mehar ...	...	...	29	26	55	55	55	45	4	49	...	...	89·09	...
	Total ...	...	...	P. 177 R. 160	142 24	319 184	251	319	277	31	308	184	147	96·55	79·89
Makran Coast	Gwadar ...	...	...	P. 220 R. 4	233 2	473 6	479	473	10	126	390	6	...	82·45	...
	TOTAL FOR THE SIND REGISTRATION DISTRICT ...	...	...	P. 1,221 R. 230	1,006 34	2,227 264	125	2,234	1,053	593	1,918	264	204	86·12	77·27
	THE BARODA CIRCLE.														
Native States.	Sojitra	...	...	137	88	225	225	225	132	78	211	...	...	93·78	...
	Dabhoi	...	...	88	44	132	102	84	18	...	102	...	...	100·	...
	Padra	...	...	78	56	134	134	128	3	...	131	...	...	97·76	...
	Pâtan	...	...	454	371	825	825	676	142	5	823	...	...	99·76	...
	Visnagar	...	...	191	162	353	353	279	72	1	352	...	...	99·43	...
	Vadnagar	...	...	163	137	300	300	236	61	3	300	...	...	100·	...
	Vijapur	...	...	117	118	235	235	135	99	...	234	...	...	99·57	...
	Gandevi	...	...	97	102	199	199	172	23	10	195	...	...	97·99	...
	Bet	...	...	109	97	206	206	58	118	29	205	...	...	99·51	...
	Amreli	...	...	260	214	474	474	339	71	2	412	...	...	86·92	...
	Dâmnagar	...	...	13	18	31	31	23	6	1	30	...	...	96·77	...
	Dhârî ... (Battalion Hospital)	...	...	P. 56 R. 4	45 2	101 6	107	101	83	13	99	6	6	98·02	100·
	(D i s p e n s a r y) ...	...	...	24	22	46	46	46	28	18	46	...	...	100·	...
	Kadi	...	...	117	121	238	238	199	14	213	...	...	89·50	...
	Sidhpur	...	...	71	65	136	136	99	27	125	...	...	92·65	...
	Dwarka	...	...	76	55	131	131	47	76	128	...	...	97·72	...
	TOTAL FOR THE BARODA CIRCLE ...	...	...	P. 2,021 R. 4	1,715 2	3,736 6	234	3,736	2,721	834	3,906	6	6	99·52	100·
	ADEN—SHAIK OTHMAN ...	...	...	P. 110 R. 2	52 ...	162 2	164	162	9	63	104	2	2	64·20	100·
	BUSHIRE	...	...	198	143	341	341	341	66	232	298	...	...	87·39	...
	MUSCAT	...	...	71	46	117	117	119	11	21	98	...	...	83·76	...
TOTAL FOR THE YEAR	BRITISH TERRITORY ...	...	...	P. 9,089 R. 970	8,863 306	18,952 1,276	177	18,444	10,000	6,017	16,852	1,277	714	91·93	55·96
	NATIVE STATES. ...	...	...	P. 6,153 R. 964	5,481 285	11,634 1,249	263	11,683	7,138	3,217	10,587	1,250	667	91·00	53·40
	GRAND TOTAL FOR THE BOMBAY PRESIDENCY ...	...	...	P. 15,842 R. 1,934	14,144 591	29,986 2,525	203	30,127	17,138	9,234	27,439	2,527	1,381	91·51	54·69

Comparative Statement No. IV., showing the Number of Persons Primarily Vaccinated and the Number of those Persons who were Successfully Vaccinated in each of the undermentioned official year.

Establishment	Persons primarily vaccinated.																			
	Total Number.	Number successfully vaccinated	Total Number.	Number successfully vaccinated	Total Number.	Number successfully vaccinated	Total Number.	Number successfully vaccinated	Total Number.	Number successfully vaccinated	Total Number.	Number successfully vaccinated	Total Number.	Number successfully vaccinated	Total Number.	Number successfully vaccinated	Total Number.	Number successfully vaccinated	Total Number.	Number successfully vaccinated
	Years ending 31st March.																			
	1875.		1876.		1877.		1878.		1879.		1880.		1881.		1882.		1883.		1884.	
Government	4,517	4,365	4,706	4,552	5,518	5,346	5,472	5,311	4,630	4,444	3,374	3,220	4,130	3,980	5,563	5,497	5,266	5,225	6,400	6,165
Municipal	54,810	51,162	59,392	55,698	61,671	58,300	50,290	46,355	42,211	39,129	48,318	45,069	49,857	47,361	54,726	52,225	65,208	61,802	59,559	56,670
Local Fund	377,558	361,689	375,202	364,503	394,775	382,211	340,998	326,670	304,420	292,640	322,871	312,124	347,194	337,392	379,008	369,913	419,822	407,635	441,180	426,408
Cantonment	969	906	1,018	965	827	771	845	804	872	846	930	939	967	967	1,060	1,060	1,471	1,450	1,465	1,449
Native State	209,689	195,729	224,730	211,316	242,391	226,402	246,773	228,333	188,447	174,757	188,196	175,979	213,411	202,210	257,732	246,565	266,280	254,072	284,180	269,598
Dispensary	19,393	17,463	19,954	18,156	19,996	18,486	20,201	17,904	17,887	16,233	19,119	17,406	22,732	21,009	26,815	25,050	28,770	26,733	29,986	27,439
Army ... { European ...	728	728	825	825	1,973	1,973	1,313	1,313	494	453	635	604	659	610	571	434	402	300	497	466
Army ... { Native ...	4,153	3,940	4,812	4,541	5,033	4,659	4,203	3,920	3,008	2,719	3,049	2,499	3,555	2,984	3,830	3,179	4,987	4,438	3,698	3,128
Total ...	671,817	635,982	690,639	660,556	732,184	698,148	670,055	630,590	561,969	531,221	586,501	557,840	642,505	616,513	729,323	703,923	792,206	761,745	826,965	791,323

Note.—Revaccinations are wholly excluded from this Statement.

No. 3199.

GENERAL DEPARTMENT.

Bombay Castle, 5th September 1884.

Letter from the Sanitary Commissioner for the Government of Bombay, No. 1853-B., dated 28th June 1884—Submitting the Annual Report of the Sanitary Department for 1883.

RESOLUTION.—The report of the Sanitary Commissioner for the year 1883 furnishes for the first time separate statistics for the several urban and rural registration circles into which the Presidency is divided. The places where registration is defective or where disease has been most prevalent are thus more definitely indicated. The vital statistics for the Panvel Táluka, which was transferred from the Thána to the Kolába Collectorate from the 1st October 1883, have been included in those of the former Collectorate.

2. *Vital Statistics.*—The total number of births amongst the civil population of the Presidency registered during the year was 501,801 as compared with 491,346 in 1882, and exceeded by 154,391 the average number of ten years ending 1882. The ratio of births registered to the population was 30·50 per mille as compared with 29·86 in the previous year, the average annual birth-rate for the ten years, 1873—1882, being 21·35. The largest number of births (40,737) was recorded in the Sátára Collectorate, but the highest deduced birth-rate was, as in the previous year, in Dhárwár. In the districts noted in the margin the deduced birth-rate was lower than in the previous year. In the city of Bombay it was again very low, 19·31 per 1,000 against 19·52 in 1882, and it is, as observed by the Sanitary Commissioner, discouraging to find so little improvement in the registration of births in the capital of the Presidency. The birth-rates in rural circles were higher than those in urban circles in all districts except Kánara, Ratnágiri, Ahmedábád, Karáchi, Hyderábád and Shikárpur, which result is not likely to accord with an actual difference in the proportion of births to population. Although bye-laws rendering compulsory the registration of births are in force in most municipal districts they are not very strictly enforced, and registering officers have greater facilities for ascertaining the occurrence of births in villages than in populous towns. The attention of the Collectors and Presidents of Municipalities should be invited to the remarks in paragraphs 12, 36, 42, 44, 47, 49 and 51 to 58 of Section I. of the report. His Excellency in Council has repeatedly pointed out the great importance of the accurate registration of vital statistics, without which many facts affecting the health and welfare of the community cannot be discovered, and it is hoped that no effort will be spared to effect an improvement. Except in the city of Bombay and in the Khándesh, Násik, Ahmednagar, and Poona Districts the ratio of births was greater than the ratio of deaths to population, the excess being greatest in Sátára, Belgaum, Dhárwár, Kaládgi, and Kaira. The careless manner in which the vital statistics are registered in most of the cantonments has, it is stated, engaged the attention of the Quarter Master General. In paragraph 18 of Section I. the Sanitary Commissioner brings to notice the high percentage of still-born children to those born alive in some districts and notably in Bombay.

Births.

Khándesh.	Bombay City.
Násik.	Surat.
Ahmednagar.	Panch Mahals.
Sátára.	Karáchi.
Kaládgi.	Shikárpur.
Ratnágiri.	

3. The number of deaths amongst the civil population of the Presidency registered in the year under review was 420,198, which number exceeded by 76,780 the number of

Deaths.

deaths recorded in 1882 and was also greater than that recorded in any previous year excepting the famine years (1877-78) since 1872. The result is doubtless however due to some extent to improvement in registration. At the same time it is believed that more deaths than actually occur are seldom entered in the register, and the figures therefore show that in some districts the mortality was exceedingly high in the year under review. The registration of deaths in the city of Bombay is understood to be accurate and the ratio of deaths per 1,000 of population rose in that city from 26·16 in 1882 to 30·08 in 1883. In 17 out of the 24 Registration Districts it was higher than in the preceding year, and it was abnormally high in Khándesh (41·97), Ahmednagar (38·56) and Násik (33·80), where severe epidemics of cholera occurred. The highest death-rates are shown for Pandharpur (64·58 per mille) and Násik (61·08 per mille), but many deaths occurred amongst pilgrims in those places and the rates given no doubt show the proportion of all deaths within these urban circles to the resident population. Of the total number of deaths recorded 21·35 per cent. were those of infants under 1 year, 19·19 per cent. those of children over 1 and under 5 years of age, 35·88 per cent. those of adults under 60 years of age and 10·38 those of persons above 60 years of age. The mortality amongst children appears to be very high. The ratios to 1,000 of population of the deaths of persons of different classes registered for the years 1883 and 1882 are shown below:—

	Number of Deaths.	Ratio per mille.	
		1883.	1882.
Hindus	355,827	27·10	21·49
Mahomedans	57,522	18·51	17·88
Christians	2,690	19·45	18·29
Other Classes	4,159	51·77	39·17

The persons who live under the most insanitary conditions are doubtless included in the head of "Other Classes," but it is difficult to believe that this fact fully accounts for the great disparity between the death-rate under that head and the other rates shown in the table.

4. *Chief Diseases.*—The following table shows the number and proportion of deaths registered as resulting from the chief diseases in the year under review and the previous year:—

	Number of Deaths.	Ratio per mille.	
		1883.	1882.
Cholera	37,954	2·31	0·48
Small-pox	13,404	0·81	0·10
Fevers...	266,741	16·21	14·89
Bowel-complaints	35,292	2·14	1·72
Injuries	5,978	0·36	0·36
All other diseases	60,829	3·70	3·41
Total ...	420,198	25·53	20·87

Cholera.

5. The number of deaths recorded as caused by cholera during the year was 37,954 as compared with 7,904 in 1882, the average annual number of deaths from this cause registered in the preceding 10 years being 21,621. The Northern Deccan Registration Division suffered most from this disease; it prevailed also in the Southern Deccan,

Konkan and Gujarát Registration Divisions, while Sind enjoyed total immunity from it. The largest number of deaths from cholera (10,914) registered in any one district was in Khándesh, but the highest proportion of deaths from this cause to population (9·81 per 1,000) is shown for Ahmednagar. The epidemic attained its greatest intensity in July, in which month one-third of the total number of deaths occurred, while it was less severe in the first and last quarters of the year. The percentage of deaths to attacks for the whole Presidency was 47·76 against 47·40 in 1882. The highest proportion of deaths to attacks (69·45) occurred in Bombay City. The disease prevailed in 131 of the 223 rural registration circles. In the tálukás noted in the margin the rate of mortality from it exceeded 10 per 1,000 of population. It also prevailed in 37 of the 55 town circles. The proportion of deaths from this cause to population (30·34 per mille) was enormous in Panvel, the insanitary state of which town attracted the attention of the Commissioner, S. D. It was also high in Násik (17·76 per mille), Chopda (14·79 per mille), Pandharpur (10·94 per mille) and Nasirábád (10·45 per mille), but the remarks made above regarding the mode of calculating the death-rates in Násik and Pandharpur are also applicable to these ratios. The circulation of the instructions drawn up by the Sanitary Commissioner for the guidance of villagers in case of an outbreak of cholera, which are reproduced in paragraph 36 of Section II., has already been directed in Government Resolution No. 892, dated the 14th March 1884.

Jámner.	Erandol.
Sávda.	Sangamner.
Párner.	Nagar.
Násik.	Junnar.
Shrigonda.	Nevása.
Sirur.	Shevgaon.

Small-pox.

6. Small-pox caused 13,404 deaths during the year under review as compared with 1,630 in 1882, the average for the preceding 10 years being 6,522. More deaths were registered as resulting from this cause in Khándesh (2,345) than in any other district. Next in order stand Thána (1,646), Bombay City (1,431), Surat (1,342), Poona (1,225), and Ratnágiri (991), while the only district that was free from the disease was Upper Sind Frontier. In 16 of the 24 Registration Districts the proportion of deaths from small-pox to population was higher than that recorded in 1882. It was very high in the town circles of Nasirábád, Surat, Nandurbár, Alibág, Panvel, Vengurla and Ahmednagar. Of the total deaths from small-pox 33·9 per cent. were those of infants under 1 year, 51·9 per cent. those of children over 1 and under 12 years of age, and 14·2 per cent. those of adults. The epidemic was most virulent in March.

Fever.

7. The deaths ascribed to fever numbered 266,741, or 23,287 more than the number recorded in 1882. The mortality shown as resulting from this cause was higher than in the previous year in all the districts of the Northern Deccan. The highest proportion of deaths from fever to population occurred in Khándesh (24·71 per mille) and the lowest in Bombay City (7·47 per mille). Except in Sholápur, Kaira, Ahmedábád and Sind a higher proportion of deaths was attributed to fever in rural circles than in urban circles. The explanation is that illiterate persons in this country usually ascribe to fever all deaths which do not result from easily recognized causes and that in rural circles the cause of death is registered as stated by such persons, whereas in towns it is often ascertained by medical officers. In considering the excessive mortality from fever as compared with that from cholera even in a year in which the latter disease prevailed in an epidemic form, to which attention is drawn by the Sanitary Commissioner, the manner in which the causes of death are recorded must not be overlooked.

Bowel-complaints.

8. There were 35,292 deaths registered as caused by bowel-complaints as compared with 28,353 in 1882. Many deaths resulted from this cause in most of the urban circles, notably in Jambusar, Pandharpur, Gokák, Athni, Gogha and Hubli, where an improvement of the water-supply appears to be much required.

Injuries.

9. The numbers of deaths resulting from different kinds of injuries are compared with those of the previous year in the following statement:—

	1883.	1882.
Drowning	2,713	2,642
Poisoning	130	103
Hanging...	179	214
Wounding	355	361
Wild beasts	95	71
Snake-bites	1,215	1,277
Other injuries	1,291	1,245
Total ...	5,978	5,913

The number of suicides in 1883 was 683, or two less than in the previous year, of which 307 were those of males and 376 those of females. There were in the year under review 1,285 persons drowned in wells, and in the past five years 7,563 persons have lost their lives from this cause. The Sanitary Commissioner points out that if wells were covered, this mortality would be reduced and the quality of the water would at the same time be improved. It is impossible however at present to carry out Mr. Hewlett's suggestion generally, and wells used for agricultural purposes must always be open. But the expediency of covering wells which supply drinking water should be impressed on the people, and attention should be drawn to the simple precaution of laying across every open well a piece of timber with a knotted rope suspended, described in No. 40 of the suggestions published with Government Resolution No. 2522, dated 13th September 1879, the adoption of which could not fail to be effectual in the preservation of life. In the section under review 95 deaths are stated to have been caused by wild animals and 1,215 by snakes, while the reports of the Commissioners of the Divisions reviewed in Government Resolution No. 1953, dated the 7th June last, show the number of these deaths to be 67 and 1,159 respectively. The Sanitary Commissioner should be requested to ascertain the cause of these discrepancies, which are similar to those pointed out in the previous year. The highest number of deaths from snake-bite was, as might be expected, recorded in the monsoon.

10. It is certain that much of the large mortality which undoubtedly occurred in the year under review was due to causes which it is possible to remove, but it is equally certain that the complete removal of the causes must in any circumstances be a work of time, and that it will require an enormous expenditure of money which cannot in present circumstances be made available as rapidly as it could be utilized. To supply pure water to the people and to clear the surface and subsoil in towns and villages of filth and damp are objects towards the attainment of which as much as possible should always be done but which cannot be completely attained for many years to come. Mr. Hewlett suggests that a special tax should be levied for sanitary improvement, the money collected from any village being utilized in the improvement of that village. He thinks that the people would readily submit to such a tax if the object were properly explained to them. But the municipal taxes which are at present in force, and which are levied on the condition and mainly for the purpose indicated by the Sanitary Commissioner, are not always readily paid, and additional taxes are seldom imposed without objection. There is no reason to believe that such a tax would be more acceptable to villagers who pay the Local Fund cess. His Excellency the Governor in Council fully recognizes the great urgency of sanitary improvement throughout the whole of the Presidency, but sees no reason to think that measures which are practicable with the means available have been to a large extent neglected. The special attention of the Commissioners of the Divisions and the District Collectors has lately been called to the question of improved conservancy in villages in Government Resolution No. 695, dated the 29th February 1884, and the Governor in Council trusts that some good will be effected by continually impressing on the people the danger of neglect of sanitary precautions. The attention of Collectors and Presidents of Municipalities should be drawn to the suggestions of the Army Sanitary Commission regarding the construction of wells which are quoted in Section II, paragraph 69 of the report.

11. The suggestions made by the Sanitary Commissioner for the abatement of certain long-standing nuisances in Bombay are still under the consideration of the Municipality. It is unnecessary to say more regarding them at present than that His Excellency the Governor in Council trusts that the determination of the best method of removing them and the adoption of the necessary measures will not be delayed longer than is absolutely necessary. The Municipal Commissioner should be requested to favour Government with his views on the proposals made in Section VI., paragraph 34, for improving the sanitation of villages and towns in the vicinity of the city. As regards the want of a Building Act to which Mr. Hewlett refers, it appears to the Governor in Council that such further provisions as may be considered necessary can most appropriately be embodied in the amended Municipal Act, and the Sanitary Commissioner should be requested to state in detail the amendments and additions which are in his opinion required. The recommendation that each Municipal Commissioner should supervise the conservancy of a section of the town in which he holds office should be brought to the notice of all Municipal Committees. The adoption of it could not fail to have a beneficial effect.

12. It has not been reported how far the instructions contained in Government Resolution No. 214, dated 22nd January 1883, regarding the inspection of certain towns by Civil Surgeons have been carried out. The Surgeon General should be requested to obtain and submit to Government definite information on this point, and in future Civil Surgeons should report at the close of each year the extent and result of their inspections, their reports being communicated by the Surgeon General to the Sanitary Commissioner in time to enable the latter officer to embody the information in his annual report. Any sanitary question which requires immediate consideration should be brought to the notice of the Collector, who will if necessary obtain the advice of the Sanitary Commissioner. Such instructions as Mr. Hewlett may think it expedient to issue to Civil Surgeons regarding this part of their duties should, to prevent departmental friction, be communicated through the Surgeon General.

13. The attention of the Military Department should be invited to paragraph 29, Section VI. of the report, in which the Sanitary Commissioner points out the nature of the information he requires regarding disease amongst the troops.

Military Sanitary Works.

14. The extracts from the annual reports of the Executive Engineers in charge of cantonments will, as usual, be considered by Government in the Military Department. At Jacobábád, Ahmedábád and Násirábád large sums were expended on the construction of military sanitary works, while at 19 other military stations minor works were undertaken. The total expenditure during the year on these works amounted to Rs. 1,74,733 as compared with Rs. 1,19,036 in 1882.

Civil Sanitary Works.

15. Most of the information given regarding civil sanitary works has been taken from the Administration Reports of the Municipalities in the Presidency, which have already been reviewed in Government Resolution No. 1349, dated the 26th April 1884. The pollution of the water in the Chandhar Tank at Mahád and in the wells at Shikárpur should be peremptorily stopped. The total expenditure incurred by the municipalities on account of conservancy during the year amounted to Rs. 11,48,903, while in the Local Fund Circles nearly 2¾ lákhs of rupees were spent in the construction of sanitary works.

Number of Vaccinators.

16. *Vaccination.*—The statistics of vaccination are given as usual for the financial year. During the year 1883-84 461 vaccinators, or 6 more than in 1882-83, were employed, of whom 269 (including 20 candidate vaccinators) were paid from the Local Funds, 40 from Municipal Funds, 146 by Native States, and the rest from Provincial and Cantonment Funds. The maintenance of an additional vaccinator in each of the districts of Surat and Karáchi has been agreed to by the Local Fund Committees. It is hoped that the Local Fund Committees of Násik, Kaira, Panch Mahals and Ahmedábád and the Native States noted in the margin will consent to entertain the full

Sávantvádi.	Lúnáda.
Sángli.	Sunth.
Gad Hinglaj.	Kadána.
Panhála.	Pálanpur.
Kolhápur Petha.	Khairpur.

number of vaccinators considered necessary. Collectors and Presidents of Municipalities should be requested to report on the suggestion of the Sanitary Commissioner that in all towns with a population of not less than 10,000, or that in each town circle which compiles birth and death returns, special vaccinators should be entertained, and that the Dispensary Officers who have hitherto performed vaccination should be relieved of that duty. The Collectors of the Southern Deccan Registration Division have proposed, with the view of encouraging good work amongst the vaccinators, to provide in the Local Fund Budget for a reward of Rs. 10 to be given at the end of each year to the most deserving of the third class vaccinators and of Rs. 15 to the most deserving of the second and first class vaccinators. His Excellency in Council has no objection to the adoption of this expedient, but it would be more regular and appropriate to reward deserving second and third class vaccinators with promotion. It is satisfactory to learn that most of the Local Fund Committees in Sind have promised their support to the scheme originated by Dr. Peacocke for the formation of a class for instruction in vaccination at Karáchi.

Number of operations.

17. The total number of vaccine operations performed during the year was 883,839, being 25,128 more than in the previous year, and comprising 826,965 cases of primary vaccination and 56,874 of re-vaccination as compared with 792,206 and 66,505 respectively in 1882-83. There was a decrease in the total number of operations performed in the Northern Deccan, Konkan, Sind, Cutch, Native Army and Presidency Circle, while in the remaining six districts and circles there was an increase. The increase in the Western Gujarát Circle is attributed by the Superintendent of Vaccination to the fact that on his tour through villages and towns he noted the names of unprotected children and communicated them to the vaccinators, who thereupon proceeded to vaccinate the children. This course might be followed with advantage in other circles. 95·69 per cent. of the primary vaccinations were successful, 1·81 per cent. were unsuccessful, and in 2·50 per cent. of the cases the results were not ascertained. Of the re-vaccination operations 66·21 per cent. proved successful, 22·73 per cent. were failures, and in 11·06 per cent. cases the results were not ascertained. The high percentage of failures in the case of re-vaccination is justly held to indicate the efficacy of the primary vaccinations. It is satisfactory to observe the continued progress in the protection afforded to infants. 61 per cent. of the children calculated to be available for vaccination were successfully vaccinated as compared with 59·01 per cent. in 1882-83, the average proportion for the past five years being 48·84. Of the total number of persons primarily vaccinated 4,358 were Christians, 629,932 Hindus, 131,647 Mahomedans, 2,004 Pársis, and the rest, 59,024, belonged to other castes. 60·98 per cent. of the primary vaccinations were performed on infants under 1 year, 36·11 per cent. on those over 1 and under 6 years of age, and 2·91 per cent. on persons above 6 years old. Each vaccinator on an average performed 1,930 operations as compared with 1,880 in the previous year.

Lymph used.

18. The English lymph received during the year was found to be generally of good quality. In the Bombay City animal lymph only was used. In Bándra, Poona City and Cantonment, and the Broach and Kaira Collectorates both animal and human lymph were used and in Rájkot and Dhrángadra the use of animal lymph was introduced, while in all other places the operations were performed with human lymph. In the towns of Broach and Nadiád animal vaccination had to be stopped owing to the difficulty of procuring heifers for inoculation.

Inoculation.

19. The Collectors of Ratnágiri, Thána, Karáchi, Hyderábád and Thar and Párkar should be requested to use every legitimate effort to put a stop to the very dangerous practice of inoculation which is said to prevail in their districts.

Expenditure on vaccination.

20. The total expenditure on account of vaccination amounted to Rs. 2,69,738-9-0, or Rs. 1,452-11-8½ in excess of the sum expended in 1882-83. The average cost of each successful operation was annas 5-5, or 2 pies less than in the previous year.

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21. His Excellency in Council is glad to observe that the suggestion of the Government of India regarding the omission of extracts from reports of subordinate officers has to a large extent been carried out, and that the report is less bulky than those of previous years without being less useful. Some further abridgement is however possible by summarizing more freely the substance of reports made and orders issued on subjects of local importance, and by omitting information which has only an indirect bearing on sanitation or vital statistics and which can without much inconvenience be found in other publications. There is, for instance, no very immediate connection between prices and the proper subject of the report, and no particular use is made of the detailed statement of prices which extends over four pages. There is a more direct connection between rainfall and sanitation, but a detailed statement of the rain registered in each district in each month need not be given unless it is intended to explain by it some facts shown in the vital statistics. It is also unnecessary to repeat in each report the statement of the area and population of each district, especially as the population is shown in many other statements. The Governor in Council does not desire that any information which can be shown to have an important bearing on vital statistics should be omitted, but it is useless to print matter between which and those statistics no connection is actually traced, and the utility of the report is impaired by inconvenient bulk. The report under review is however on the whole satisfactory and evinces the deep interest which Mr. Hewlett takes in his important duties and the zeal with which he carries them out. His Excellency in Council is pleased to notice the commendation bestowed on the Deputy Sanitary Commissioners for the creditable manner in which their work has been performed.

J. MONTEATH,
Under Secretary to Government.

To

The Sanitary Commissioner,
The Surgeon General with the Government of Bombay,
The Military Department of the Secretariat,
The Judicial Department of the Secretariat,
The Revenue Department of the Secretariat,
The Political Department of the Secretariat,
The Public Works Department of the Secretariat,
The Commissioner, N. D.,
The Commissioner, C. D.,
The Commissioner, S. D.,
The Commissioner in Sind,
All Collectors including Collectors and Deputy Commissioners in Sind,
The Municipal Commissioner for the City of Bombay,
The Compiler of the Bombay Gazetteer,
The Compiler of the General Administration Report for 1883-84.
The Accountant General,

With copies of the Report.

The Secretary of State,
The Government of India.
By letter.